

**TDMS No.** 88006 - 04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Final 1 Mice

**Date Report Reqstd:** 07/28/2005

**Time Report Reqstd:** 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

**Lab:** BNW

**C Number:** C88006B

**Lock Date:** 03/08/2004

**Cage Range:** ALL

**Date Range:** ALL

**Reasons For Removal:** ALL

**Removal Date Range:** ALL

**Treatment Groups:** Include ALL

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	DAY ON TEST	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	7	7	5	4	7	7	
		3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
		0	0	0	0	9	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9	
<b>B6C3F1 MICE MALE</b>	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>CONTROL</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

## ALIMENTARY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

1.. Not examined microscopically  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

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Lab: BNW

DAY ON TEST	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	5	4	7	7		
	3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	5	5	1	2
	0	0	0	0	9	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CONTROL</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4

**males  
(cont...)**

Necrosis

3

Vacuolization Cytoplasmic, Focal

3

Mixed Cell Focus

Mesentery

+

+

+

Fat, Necrosis

2

2

2

Pancreas

+

+

+

+

+

+

+

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+

+

+

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+

2

Atrophy

Salivary Glands

+

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+

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Stomach, Forestomach

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+

2

Ulcer

Epithelium, Hyperplasia

Stomach, Glandular

+

+

+

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+

2

Necrosis

Hyperplasia

+

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+

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+

+

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+

+

3

Hyperplasia

**CARDIOVASCULAR SYSTEM**

Heart

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

+

Inflammation, Chronic Active

Metaplasia, Osseous

3

**ENDOCRINE SYSTEM**

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**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

## **GENERAL BODY SYSTEM**

NONE

## **GENITAL SYSTEM**

## Epididymis Granuloma Sperm

## Penis

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Lab: BNW

B6C3F1 MICE MALE CONTROL	ANIMAL ID	males (cont...)																									
		males (cont...)																									
		DAY ON TEST	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	7	5	4	7	7		
		3	3	3	3	2	3	3	9	3	3	2	2	8	2	2	3	2	7	3	2	3	2	5	5	1	
		0	0	0	0	9	0	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Prostate		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Suppurative																											
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic																											
Inflammation, Suppurative																											
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy		2		2																							

## HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis																											
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	
Lymph Node, Mandibular	+	+	+	M	+	M	M	M	M	M	+	+	M	+	M	+	M	+	M	+	M	+	M	+	M	M	
Lymph Node, Mediastinal	M	M	+	M	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia, Lymphoid																											
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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DAY ON TEST	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	5	4	7	7		
	3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	5	5	1	2
	0	0	0	0	9	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9
<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CONTROL</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4

males  
(cont...)

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar Epithelium, Hyperplasia																									
Thrombosis																									
Bronchiole, Hyperplasia																									
Alveolus, Infiltration Cellular, Histiocyte																									
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Olfactory Epithelium, Metaplasia																									
Olfactory Epithelium, Glands, Hyperplasia																									
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

**SPECIAL SENSES SYSTEM**

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cornea, Hyperplasia, Squamous																									
Degeneration																									
Cornea, Inflammation, Chronic Active																									
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																									

**URINARY SYSTEM**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nephropathy	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cyst	X							X																	
Infarct																									
	1																								
	2																								

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## Lab: BNW

	7	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	5	7	7	7	5	4	7	7	
DAY ON TEST	3	3	3	3	2	3	3	9	3	3	2	2	8	2	3	2	7	3	2	3	2	5	5	1	2
	0	0	0	0	9	0	0	0	0	9	9	4	9	1	9	9	0	9	0	9	5	6	5	9	
<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>CONTROL</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Metaplasia, Osseous  
Renal Tubule, Necrosis  
Pelvis, Dilatation

1

Urinary Bladder  
Inflammation, Chronic Active

**males**  
**(cont...)**

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	DAY ON TEST	7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	7	4	7	7	6	5	
B6C3F1 MICE MALE	ANIMAL ID	2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4
CONTROL		9	0	1	9	1	0	9	9	4	9	0	9	0	0	3	0	4	0	0	6	0	9	5	9	

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B6C3F1 MICE MALE CONTROL	ANIMAL ID	DAY ON TEST																									* TOTALS	
		7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	7	7	7	4	7	7	6	5	
		2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4	9	5
		9	0	1	9	1	0	9	9	4	9	0	9	0	0	0	3	0	4	0	0	6	0	9	5	9		
Necrosis																												3 3.7
Vacuolization Cytoplasmic, Focal																												1 3.0
Mixed Cell Focus																												1
Mesentery		+																										5
Fat, Necrosis		2																										5 2.0
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																												1 2.0
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Ulcer																												3 2.3
Epithelium, Hyperplasia																												1 2.0
Stomach, Glandular		+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	48	
Necrosis																												1 2.0
Hyperplasia																												1 3.0

## CARDIOVASCULAR SYSTEM

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Artery, Inflammation, Chronic Active																												1 3.0
Metaplasia, Osseous																												1 1.0

## ENDOCRINE SYSTEM

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		7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	4	7	7	6	5		
		2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4
		9	0	1	9	1	0	9	9	4	9	0	9	0	0	3	0	4	0	6	0	9	5	9		
<b>B6C3F1 MICE MALE</b>		.....																								
<b>CONTROL</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5		
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		* TOTALS																								
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hypertrophy		4	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	25	2.0	
Hyperplasia		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0		
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0		
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0		
Parathyroid Gland		M	+	M	+	M	+	+	+	+	+	I	M	+	+	+	M	M	I	+	+	+	M	+	35	
Pituitary Gland		I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Follicular Cell, Hyperplasia		2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	1	3	2	2	1	3	14	1.9	

## **GENERAL BODY SYSTEM**

NONE

## **GENITAL SYSTEM**

Epididymis + 50  
Granuloma Sperm 1 4.0

---

Penis + 1

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

- 1) Minimal    3) Moderate
- 2) Mild        4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

	DAY ON TEST	7	7	7	7	7	7	6	7	5	7	7	7	7	6	7	7	7	7	7	4	7	7	6	5	
B6C3F1 MICE MALE	ANIMAL ID	2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4
CONTROL		9	0	1	9	1	0	9	9	4	9	0	9	0	0	0	3	0	4	0	0	6	0	9	5	9
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
		* TOTALS																								
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Prostate		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation, Suppurative																										4 2.8
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	49	
Inflammation, Chronic																										1 3.0
Inflammation, Suppurative																										3 1 3.0
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																										4 2.5

## HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis																										1 3.0
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	M	+	+	+	M	+	+	M	M	42	
Lymph Node, Mandibular	M	M	+	M	M	M	M	M	+	M	+	+	+	M	M	M	M	M	M	M	M	M	M	M	21	
Lymph Node, Mediastinal	M	+	+	+	+	+	+	+	A	+	+	+	+	+	M	M	+	+	+	+	+	+	+	M	41	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Hyperplasia, Lymphoid																										1 3.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

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Species/Strain: MICE/B6C3F1

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Lab: BNW

	7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	7	7	7	4	7	7	6	5
	2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4	
	9	0	1	9	1	0	9	9	4	9	0	9	0	0	0	3	0	4	0	0	6	0	9	5	9	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

\* TOTALS

Hematopoietic Cell Proliferation 2 2.5

Thymus + + + + + + + + + + + M + + M + M + M + + M + 41

## INTEGUMENTARY SYSTEM

Mammary Gland M 1

Skin + 50 9 3.6  
Inflammation, Chronic Active 3 4  
Cyst Epithelial Inclusion 4  
Inflammation, Acute 4 1 4.0

## MUSCULOSKELETAL SYSTEM

Bone + 50

## NERVOUS SYSTEM

Brain + 50

## RESPIRATORY SYSTEM

Larynx + 50

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B6C3F1 MICE MALE CONTROL	ANIMAL ID	DAY ON TEST																									* TOTALS		
		7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	7	7	7	4	7	7	6	5		
		2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4	4		
		9	0	1	9	1	0	9	9	4	9	0	9	0	0	0	3	0	4	0	0	6	0	9	5	9			
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Alveolar Epithelium, Hyperplasia								2	1	4																		6 1.8	
Thrombosis																													1 2.0
Bronchiole, Hyperplasia																													1 3.0
Alveolus, Infiltration Cellular, Histiocyte																													1 1.0
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Olfactory Epithelium, Metaplasia								2																					6 1.2
Olfactory Epithelium, Glands, Hyperplasia																													4 1.0
Trachea		+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		

## SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	48		
Cornea, Hyperplasia, Squamous																												1 1.0
Degeneration																												1 4.0
Cornea, Inflammation, Chronic Active																												1 2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperplasia								1																				3 1.7

## URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Nephropathy	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	2	2	43 1.2	
Cyst																												3
Infarct																												2 1.5

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Species/Strain: MICE/B6C3F1

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Lab: BNW

B6C3F1 MICE MALE CONTROL	ANIMAL ID	DAY ON TEST																				* TOTALS				
		7	7	7	7	7	7	6	7	6	7	5	7	7	7	7	6	7	7	7	7	4	7	7	6	5
		2	3	3	2	3	3	5	2	9	2	7	2	3	3	3	8	3	2	1	3	8	3	2	3	4
		9	0	1	9	1	0	9	9	4	9	0	9	0	0	0	3	0	4	0	0	6	0	9	5	9
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

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**Species/Strain:** MICE/B6C3F1

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	7	2	7	3	5	7	4	7	7	7	7	5	6	6	7	7	7	7	7	4	7	4	7	7	7
DAY ON TEST	2	3	3	4	3	3	8	3	1	3	3	0	5	6	1	2	2	3	2	2	6	3	5	2	3
	9	6	0	8	7	0	1	1	0	0	1	4	0	0	2	9	9	0	9	9	4	0	3	9	1
<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>100 PPM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

## **ALIMENTARY SYSTEM**

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Page 10

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	7	2	7	3	5	7	4	7	7	7	5	6	6	7	7	7	7	7	4	7	4	7	7	
DAY ON TEST	2	3	3	4	3	3	8	3	1	3	3	0	5	6	1	2	2	3	2	2	6	3	5	2
	9	6	0	8	7	0	1	1	0	0	1	4	0	0	2	9	9	0	9	9	4	0	3	9

  

<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>100 PPM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4

males  
(cont...)

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Mineralization																								
Thrombosis																								
Artery, Inflammation, Chronic Active																								

## ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	2					1			2		3			2	2	2	2	3	1	2		2	2	
Hypertrophy																								
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	2																							
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+
Hyperplasia																								
Parathyroid Gland	+	+	+	M	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	M	+	+
Pituitary Gland	+	I	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+
Pars Distalis, Hyperplasia																								
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Follicular Cell, Hyperplasia																								

## GENERAL BODY SYSTEM

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	DAY ON TEST	7 2 9	2 3 6	7 3 0	3 4 8	5 3 7	7 8 0	4 3 1	7 1 0	7 3 0	7 3 1	5 5 0	6 6 0	6 1 2	7 2 9	7 3 9	7 2 9	7 2 9	4 6 0	7 6 3	4 3 0	7 5 3	7 2 9
<b>B6C3F1 MICE MALE</b>		0 0 2 0 0																					
<b>100 PPM</b>	ANIMAL ID	1 2 3 4 5	2 2 3 4 5	3 2 3 5 6	7 7 8 6 7	8 8 9 6 7	9 9 0 5 1	0 1 1 2 1	0 1 1 3 2	0 1 1 4 3	1 1 1 1 4	1 1 1 1 5	1 1 1 1 6	1 1 1 1 7	1 1 1 1 8	1 1 1 1 9	1 1 1 1 0	1 2 2 2 1	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2

**males  
(cont...)**

Lymph Node, Bronchial	+	+	+	M	+	+	+	+	M	+	+	M	+	M	M	+	+	+	+	+	+	+	M	+
Lymph Node, Mandibular	+	+	+	M	+	+	+	+	M	+	+	M	+	+	M	+	M	+	M	+	M	+	M	+
Lymph Node, Mediastinal	+	M	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+
Lymph Node, Mesenteric Angiectasis	+	+	+	+	+	M	+	+	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+
Spleen Hematopoietic Cell Proliferation	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**INTEGUMENTARY SYSTEM**

Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Skin Inflammation, Chronic Active	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**MUSCULOSKELETAL SYSTEM**

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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	DAY ON TEST	7	2	7	3	5	7	4	7	7	7	7	5	6	6	7	7	7	7	7	4	7	4	7	7	7	
B6C3F1 MICE MALE	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 PPM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

## SPECIAL SENSES SYSTEM

## **URINARY SYSTEM**

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Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

	DAY ON TEST	7	7	7	7	3	7	7	7	7	7	7	7	6	7	7	5	7	6	7	7	7	7	7	7	
		2	3	2	3	4	3	2	3	3	3	1	3	7	3	3	3	3	2	3	2	3	2	3	2	2
		9	0	9	0	5	0	9	0	1	0	0	1	0	5	0	1	2	0	6	0	9	6	0	8	9
<hr/>																										
<b>B6C3F1 MICE MALE</b>	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>100 PPM</b>		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

# ALIMENTARY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

#### I .. Insufficient tissue

.. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

B6C3F1 MICE MALE 100 PPM	ANIMAL ID	DAY ON TEST																					* TOTALS
		7	7	7	7	3	7	7	7	7	7	6	7	7	5	7	6	7	7	7	7	7	
		2	3	2	3	4	3	2	3	3	3	1	3	7	3	3	3	2	3	2	2	3	2
		9	0	9	0	5	0	9	0	1	0	0	1	0	5	0	1	2	0	6	0	9	6
Necrosis		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vacuolization Cytoplasmic, Focal		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hematopoietic Cell Proliferation		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mesentery		2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5
Fat, Necrosis		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Duct, Cyst																							1
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Epithelium, Hyperplasia																							4 2.5
Ulcer		3																					3 2.3
Inflammation																							2 2.0
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Mineralization																							1 1.0
Epithelium, Hyperplasia, Focal		1																					1 3.0
Metaplasia, Hepatocyte																							1 3.0
Necrosis																							1 2.0
Tooth																							1
Malformation																							1 4.0

## CARDIOVASCULAR SYSTEM

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+ .. Tissue examined microscopically

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I .. Insufficient tissue

M .. Missing tissue

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2) Mild 4) Marked

TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

DAY ON TEST	7	7	7	7	3	7	7	7	7	7	7	7	6	7	7	5	7	6	7	7	7	7	7	7	
	2	3	2	3	4	3	2	3	3	3	1	3	7	3	3	3	3	2	3	2	2	3	2	2	2
	9	0	9	0	5	0	9	0	1	0	0	1	0	5	0	1	2	0	6	0	9	6	0	8	9
<b>B6C3F1 MICE MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>100 PPM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

**\* TOTALS**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Mineralization																								1	2.0
Thrombosis																								1	3.0
Artery, Inflammation, Chronic Active																								2	1.20

**ENDOCRINE SYSTEM**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia	2																							12	2.0
Hypertrophy	3																							13	2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia																								3	1.7
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Hyperplasia																								1	3.0
Parathyroid Gland	M	M	+	+	+	+	M	+	+	+	M	+	M	M	M	M	M	M	M	M	M	M	M	33	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Pars Distalis, Hyperplasia																								1	2.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Follicular Cell, Hyperplasia																								11	1.4

**GENERAL BODY SYSTEM**

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TDMS No. 88006 - 04

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ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

	DAY ON TEST	7 2 9	7 3 0	7 2 9	3 0	7 2 9	7 3 0	7 3 0	7 3 0	7 3 0	7 3 0	6 7 5	7 3 0	5 3 2	7 3 0	7 3 0	7 2 9	7 2 9	7 2 9	7 2 9	7 2 9
<b>B6C3F1 MICE MALE</b>		0 0 2 2 2	0 0 2 2 2	0 0 2 2 3	0 0 3 3 3	0 0 3 4 4	0 0 4 4 4														
<b>100 PPM</b>	ANIMAL ID	0 0 2 2 6	0 0 2 2 7	0 0 2 2 8	0 0 2 2 9	0 0 2 2 0	0 0 2 2 1	0 0 2 2 2	0 0 2 2 3	0 0 2 2 4	0 0 2 2 5	0 0 2 2 6	0 0 2 2 7	0 0 2 2 8	0 0 2 2 9	0 0 2 2 0	0 0 2 2 1	0 0 2 2 2	0 0 2 2 3	0 0 2 2 4	* <b>TOTALS</b>
Peritoneum																					

**GENITAL SYSTEM**

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Granuloma Sperm																					1 3.0
Penis	+																				1
Inflammation, Suppurative																					1 4.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Suppurative																					1 4.0
Hyperplasia																					1 2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Chronic																					1 3.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																					1 2.0

**HEMATOPOIETIC SYSTEM**

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Lymph Node																					4

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TDMS No. 88006 - 04

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ALPHA-METHYLSTYRENE

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Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

	DAY ON TEST	7 2 9	7 3 0	7 2 9	3 0	7 0	7 1	7 0	7 1	7 0	7 1	6 7 0	7 3 0	7 3 1	5 3 2	7 3 0	7 3 1	5 3 2	7 3 0	7 3 0	7 2 0	7 2 9	7 2 6	7 3 0	7 2 9	7 2 0	7 2 8	7 2 9
<b>B6C3F1 MICE MALE</b>		0 0 2 2 2	0 0 2 2 2	0 0 2 2 3	0 0 3 3 3	0 1 2 3 4	0 0 2 2 3																					
<b>100 PPM</b>	ANIMAL ID	6 7 8 9 0	1 2 3 4 5	<b>* TOTALS</b>																								

Lymph Node, Bronchial

M M M + + M + + + + M M + + + + M M M + + + M + 34

Lymph Node, Mandibular

+ M + M + M M M M + M M M M + + + M M M M M M + M 25

Lymph Node, Mediastinal

M + M + + + + + + M + + + + M + + + + + + + + + + 41

Lymph Node, Mesenteric  
Angiectasis

+ 47 1 3.0

Spleen  
Hematopoietic Cell Proliferation

+ 49 2 3.0

Thymus

+ + + + + + + M + + + + + + M M + + + + M + + 46

**INTEGUMENTARY SYSTEM**

Mammary Gland

M 0

Skin  
Inflammation, Chronic Active

+ 50 2 4.0

**MUSCULOSKELETAL SYSTEM**

Bone

+ 50

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|                  |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                  | DAY ON TEST | 7<br>2<br>9           | 7<br>3<br>0           | 7<br>2<br>9           | 3<br>0                | 7<br>3<br>0           | 7<br>3<br>1           | 7<br>3<br>0           | 7<br>3<br>0           | 6<br>7<br>5           | 7<br>3<br>0           | 7<br>3<br>0           | 5<br>3<br>2           | 7<br>3<br>0           | 7<br>3<br>0           | 7<br>3<br>0           | 7<br>2<br>9           | 7<br>2<br>6           | 7<br>2<br>0           | 7<br>2<br>8           | 7<br>2<br>9           |
| B6C3F1 MICE MALE | ANIMAL ID   | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>4<br>4 | 0<br>0<br>4<br>4<br>4 |
| 100 PPM          |             | 6<br>7<br>8           | 9<br>0<br>1           | 0<br>2<br>3           | 5<br>6<br>7           | 4<br>5<br>8           | 5<br>6<br>9           | 6<br>7<br>0           | 5<br>6<br>1           | 4<br>5<br>2           | 4<br>5<br>3           | * TOTALS              |

Skeletal Muscle

+ + 2

## NERVOUS SYSTEM

Brain + 50

## RESPIRATORY SYSTEM

Larynx + 50

|   |  |
|---|--|
| Lung  | + 50 |
| Alveolar Epithelium, Hyperplasia            | 1 1  |
| Thrombosis                                  | 1  |
| Perivascular, Inflammation, Suppurative     | 2  |
| Alveolus, Infiltration Cellular, Histiocyte | 3  |

|   |  |
|---|--|
| Nose  | + 50 |
| Olfactory Epithelium, Glands, Hyperplasia     | 2 3 3 3 2 3 2 4 3 3 4 2 3 3 3 3 3 3 2 2 3 3 3 3 2 2 3 3 3 3 2 2 3 50 2.8         |
| Olfactory Epithelium, Metaplasia              | 2 3 3 3 2 3 2 3 3 3 3 3 3 3 3 3 3 2 2 3 3 2 3 2 2 3 47 2.7                       |
| Olfactory Epithelium, Atrophy                 | 3  |
| Olfactory Epithelium, Necrosis                | 2  |
| Respiratory Epithelium, Degeneration, Hyaline | 3  |
| Inflammation, Suppurative                     | 2  |
| Olfactory Epithelium, Degeneration, Hyaline   | 3  |
|   | 2  |
| Trachea                                       | + 50 |

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|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                         | DAY ON TEST | 7<br>2<br>9           | 7<br>3<br>0           | 7<br>2<br>9           | 3<br>0                | 7<br>3<br>0           | 7<br>3<br>1           | 7<br>3<br>0           | 7<br>3<br>0           | 7<br>3<br>1           | 6<br>7<br>0           | 7<br>3<br>0           | 5<br>3<br>1           | 7<br>3<br>2           | 6<br>2<br>0           | 7<br>3<br>0           | 7<br>2<br>9           | 7<br>2<br>6           | 7<br>2<br>0           | 7<br>3<br>8           | 7<br>2<br>9           |
| <b>B6C3F1 MICE MALE</b> |             | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>3 | 0<br>0<br>3<br>3<br>4 | 0<br>0<br>3<br>3<br>4 | 0<br>0<br>4<br>4<br>4 |
| <b>100 PPM</b>          | ANIMAL ID   | 0<br>0<br>2<br>2<br>6 | 0<br>0<br>2<br>2<br>7 | 0<br>0<br>2<br>2<br>8 | 0<br>0<br>2<br>2<br>9 | 0<br>0<br>2<br>3<br>0 | 0<br>0<br>2<br>3<br>1 | 0<br>0<br>2<br>3<br>2 | 0<br>0<br>2<br>3<br>3 | 0<br>0<br>2<br>3<br>4 | 0<br>0<br>2<br>3<br>5 | 0<br>0<br>2<br>3<br>6 | 0<br>0<br>2<br>3<br>7 | 0<br>0<br>2<br>3<br>8 | 0<br>0<br>2<br>3<br>9 | 0<br>0<br>2<br>3<br>0 | 0<br>0<br>2<br>3<br>1 | 0<br>0<br>2<br>3<br>2 | 0<br>0<br>2<br>3<br>3 | 0<br>0<br>2<br>3<br>4 | <b>* TOTALS</b>       |

**SPECIAL SENSES SYSTEM**

Eye

+ + + + + + + + + + + + + + + + A + + + + + + 44

Harderian Gland  
Hyperplasia

+ 49 6 2.0

**URINARY SYSTEM**

Kidney

+ 49

Nephropathy

1 1 1 1 1 3 1 3 1 1 1 1 3 1 1 3 3 2 1 1 1 4 2 2 37 1.8

Infarct

2 3 1.7

Capsule, Fibrosis

2 2.0

Metaplasia, Osseous

1 1.0

Cyst

X 1

Urethra

1

Bulbourethral Gland, Hyperplasia  
Bulbourethral Gland, Inflammation,  
Suppurative1 3.0  
1 2.0

Urinary Bladder

1 2.0

Transitional Epithelium, Hyperplasia  
Inflammation, Chronic Active

1 2.0

+ 48

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Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

males  
(cont...)

## ALIMENTARY SYSTEM

Esophagus

+ +

Gallbladder

+ + + + + + + + + A + + + + + + + + + + M + + + A +

Intestine Large, Cecum  
Hemorrhage

+ + + + + + + + + A + + + + + + + + + + + + + + + A +

Intestine Large, Colon

+ A +

Intestine Large, Rectum

+ A +

Intestine Small, Duodenum

+ A +

Intestine Small, Ileum

+ + + + + + + + + A + + + + + + + + + + + + + + + A +

Intestine Small, Jejunum

+ A +

Liver

+ +

Tension Lipidosis

1 X

Clear Cell Focus

X X

Basophilic Focus

X X

Eosinophilic Focus

X X

Fatty Change

2

Bile Duct, Degeneration, Hyaline

Portal, Infiltration Cellular, Mononuclear

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 2 |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

**males  
(cont...)**

Cell  
Necrosis  
Mixed Cell Focus  
Infarct

Mesentery  
Artery, Inflammation  
Fat, Inflammation, Chronic Active  
Fat, Necrosis

Pancreas  
Basophilic Focus  
Necrosis  
Atrophy

Salivary Glands  
Inflammation, Suppurative

Stomach, Forestomach  
Epithelium, Hyperplasia  
Inflammation

Stomach, Glandular  
Hyperplasia

Tongue

Tooth  
Malformation

+  
2

3

3

2

+

+

+

+

.....

.....

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |   |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

**males  
(cont...)**

**CARDIOVASCULAR SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Thrombosis                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**ENDOCRINE SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hypertrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland            | M | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pituitary Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Hyperplasia   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal    3) Moderate

2) Mild        4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |   |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

**males  
(cont...)**

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|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Follicular Cell, Hyperplasia | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Epididymis  
Granuloma Sperm  
Hemorrhage

+

+

+

+

+

+

+

+

+

+

+

+

+

+

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+

+

2

2

Preputial Gland  
Inflammation, Chronic Active  
Necrosis

+

+

+

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3

Prostate  
Inflammation, Suppurative

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Seminal Vesicle  
Inflammation, Suppurative

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Testes  
Atrophy

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2

**HEMATOPOIETIC SYSTEM**

Bone Marrow

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\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |   |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>300 PPM</b>          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

**males  
(cont...)**

Lymph Node

+

Lymph Node, Bronchial

M + + M + M + M + + + + + M M + + + + + M + + + + +

Lymph Node, Mandibular

M M M + M + + + + + + M + + + M M + + + M M M M M +

Lymph Node, Mediastinal

M M M + + M + M + + + M + M + + + + M M + M + M +

Lymph Node, Mesenteric  
Hyperplasia, Lymphoid

+ +

Spleen  
Hematopoietic Cell Proliferation  
Hyperplasia, Lymphoid

+ +

Thymus

+ + + + + + + + + M + + + + + + + + + + + + + + + + + + +

**INTEGUMENTARY SYSTEM**

Mammary Gland

M M

Skin  
Inflammation, Chronic Active  
Inflammation, Acute

+ +

4 4

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |
|                         | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |
|                         | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 3 | 9 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

**males  
(cont...)**

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**NERVOUS SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Meninges, Infiltration Cellular, |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Polymorphonuclear                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**RESPIRATORY SYSTEM**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 | 1 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 |
| Olfactory Epithelium, Atrophy | 2 | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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TDMS No. 88006 - 04

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Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

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Lab: BNW

|                         |                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7                          | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |
|                         | 3                          | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 2 |
|                         | 1                          | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 0 | 9 |
| <b>B6C3F1 MICE MALE</b> |                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                         | 0                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 0                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4                          | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 0                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1                          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
|                         |                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                         | <b>males<br/>(cont...)</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Glands, Hyperplasia      | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Metaplasia               | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Degeneration,<br>Hyaline |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Olfactory Epithelium, Necrosis                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pleura   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Trachea  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 3 |
| Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye             | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Harderian Gland | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy                          | 1 | 1 | 3 | 1 | 1 | 1 | 2 |   | 1 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 4 | 1 | 1 | 1 | 1 |
| Pelvis, Dilatation                   |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Infarct                              |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Metaplasia, Osseous                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>B6C3F1 MICE MALE</b><br><b>300 PPM</b> | ANIMAL ID | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 3 | 7 |   |   |
|   |           | 3 | 2 | 3 | 0 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 9 | 2 | 3 | 8 | 2 |
|   |           | 1 | 9 | 0 | 8 | 9 | 0 | 9 | 9 | 0 | 0 | 8 | 9 | 0 | 1 | 1 | 9 | 0 | 0 | 8 | 9 | 0 | 0 | 3 |

males  
(cont...)

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Urinary Bladder                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST             | 7               | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 |   |
|-------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 1               | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 6 |
|                         | 0               | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0 | 0 | 9 | 5 |
| <b>B6C3F1 MICE MALE</b> | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>          | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 4               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
|                         | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                         | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|                         | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Esophagus                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Gallbladder                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | A | + | + | + | +  | 45  |
| Intestine Large, Cecum<br>Hemorrhage       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |     |
| Intestine Large, Colon                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |     |
| Intestine Large, Rectum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |     |
| Intestine Small, Duodenum                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |     |
| Intestine Small, Ileum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |     |
| Intestine Small, Jejunum                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 |     |
| Liver                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Tension Lipidosis                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   | 3  | 1.0 |
| Clear Cell Focus                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 13 |     |
| Basophilic Focus                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 7  |     |
| Eosinophilic Focus                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 10 |     |
| Fatty Change                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 1  | 2.0 |
| Bile Duct, Degeneration, Hyaline           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 1  | 3.0 |
| Portal, Infiltration Cellular, Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 1  | 2.0 |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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x .. Lesion present

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2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                                   | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5        |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST                       | 1 | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 6 | 3 | 3 | 2 | 6        |
|                                   | 0 | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0 | 9 | 5        |
| <b>B6C3F1 MICE MALE</b>           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| <b>300 PPM</b>                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| ANIMAL ID                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        |
|                                   | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                                   | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8        |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
| Cell Necrosis                     | 2 | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Mixed Cell Focus                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Infarct                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Mesentery                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Artery, Inflammation              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Fat, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Fat, Necrosis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Pancreas                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49       |
| Basophilic Focus                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Necrosis                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Atrophy                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Salivary Glands                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |
| Inflammation, Suppurative         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Stomach, Forestomach              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49       |
| Epithelium, Hyperplasia           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Inflammation                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Stomach, Glandular                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49       |
| Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Tongue                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Tooth                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 2        |
| Malformation                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

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1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|                         | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 |                 |
|                         | 1 | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 6 | 3 | 3 | 2 | 6               |
|                         | 0 | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0 | 0 | 9 | 5               |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
| <b>300 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|                         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4               |
|                         | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5               |
|                         | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9               |
|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

**CARDIOVASCULAR SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Heart                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Thrombosis                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  | 3 4.0 |
| Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 3.0   |

**ENDOCRINE SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |
| Hypertrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 14 | 1.7 |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  | 2.0 |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 4.0 |
| Adrenal Medulla              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Islets, Pancreatic           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Parathyroid Gland            | + | M | M | M | M | M | + | M | + | M | + | M | M | M | M | + | M | M | M | + | M | + | 29 |     |
| Pituitary Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |
| Pars Distalis, Hyperplasia   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Hemorrhage                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Thyroid Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                              |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |
|------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---|
|                              | 7               | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7  | 5   |   |
|                              | 1               | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 6 | 3 | 3  | 2   | 6 |
|                              | 0               | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0  | 9   | 5 |
| <hr/>                        |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |
| <b>B6C3F1 MICE MALE</b>      | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0   | 0 |
| <b>300 PPM</b>               | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0   | 0 |
|                              | 4               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4  | 4   | 4 |
|                              | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4  | 4   | 5 |
|                              | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7  | 8   | 9 |
|                              | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |
| Follicular Cell, Hyperplasia | 2               | 2 |   | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 22 | 1.7 |   |

## GENERAL BODY SYSTEM

NONE

## GENITAL SYSTEM

|                              |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
|------------------------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Epididymis                   | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Granuloma Sperm              |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 |
| Hemorrhage                   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 |
| Preputial Gland              | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Inflammation, Chronic Active |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 |
| Necrosis                     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 |
| Prostate                     | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |
| Inflammation, Suppurative    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 |
| Seminal Vesicle              | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 49 |   |
| Inflammation, Suppurative    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 |
| Testes                       | +   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Atrophy                      |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 |
|                              | 2.0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |

## HEMATOPOIETIC SYSTEM

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                 |             |             |             |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|-------------|-------------|
|                         | DAY ON TEST | 7<br>1<br>0           | 7<br>2<br>8           | 7<br>3<br>1           | 6<br>9<br>8           | 7<br>2<br>0           | 7<br>3<br>9           | 7<br>2<br>9           | 7<br>3<br>0           | 7<br>2<br>1           | 7<br>2<br>9           | 7<br>3<br>9           | 7<br>2<br>0           | 7<br>2<br>9           | 7<br>3<br>6           | 7<br>2<br>0           | 7<br>3<br>8           | 7<br>3<br>0           | 7<br>3<br>9           | 7<br>2<br>0           | 7<br>3<br>9           | 7<br>3<br>1           | 7<br>2<br>0           | 7<br>3<br>8     | 7<br>3<br>0 | 7<br>3<br>9 | 5<br>6<br>5 |
| <b>B6C3F1 MICE MALE</b> |             | 0<br>0<br>4<br>2<br>6 | 0<br>0<br>4<br>2<br>7 | 0<br>0<br>4<br>2<br>8 | 0<br>0<br>4<br>2<br>9 | 0<br>0<br>4<br>3<br>0 | 0<br>0<br>4<br>3<br>1 | 0<br>0<br>4<br>3<br>9 | 0<br>0<br>4<br>3<br>0 | 0<br>0<br>4<br>3<br>9 | 0<br>0<br>4<br>3<br>0 | 0<br>0<br>4<br>3<br>9 | 0<br>0<br>4<br>3<br>0 | 0<br>0<br>4<br>3<br>9 | 0<br>0<br>4<br>4<br>0 | 0<br>0<br>4<br>4<br>1 | 0<br>0<br>4<br>4<br>2 | 0<br>0<br>4<br>4<br>3 | 0<br>0<br>4<br>4<br>4 | 0<br>0<br>4<br>4<br>5 | 0<br>0<br>4<br>4<br>6 | 0<br>0<br>4<br>4<br>7 | 0<br>0<br>4<br>4<br>8 | * <b>TOTALS</b> |             |             |             |
|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                 |             |             |             |

## Lymph Node

1

## Lymph Node, Bronchial

M + + + + + M + + + + M M M + + + + + + + + M + + 37

## Lymph Node, Mandibular

+ M + M + + + | M + + + M M + + + + + M M A M + M + 28

## Lymph Node, Mediastinal

+ + + + + + + M + M M + M + + + + + M + + + A + M M M M 30

Lymph Node, Mesenteric  
Hyperplasia, Lymphoid+ + + + + + + + + + + + + + + + M + + + + A + + + + + 48  
4 1 4.0Spleen  
Hematopoietic Cell Proliferation  
Hyperplasia, Lymphoid+ A + + + + + 49  
3 2 3.0  
3 1 3.0

## Thymus

+ + + + M + + + + + + + + + + + M + + + + + + A + + M + + 44

## INTEGUMENTARY SYSTEM

## Mammary Gland

M 0

Skin  
Inflammation, Chronic Active  
Inflammation, Acute+ 50  
4 4.0  
3 1 3.0

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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TDMS No. 88006 - 04

Test Type: CHRONIC

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Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

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Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7               | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 |   |
|                         | 1               | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 6 |
|                         | 0               | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0 | 0 | 9 | 5 |   |
| <b>B6C3F1 MICE MALE</b> | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>300 PPM</b>          | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 4               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   |
|                         | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |   |
|                         | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |   |
|                         | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

**NERVOUS SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Brain   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Meninges, Infiltration Cellular,<br>Polymorphonuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Necrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |

**RESPIRATORY SYSTEM**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Inflammation, Chronic Active                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0   |
| Bronchiole, Hyperplasia                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0   |
| Perivascular, Infiltration Cellular,<br>Mononuclear Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |
| Congestion, Chronic                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0   |
| Alveolar Epithelium, Hyperplasia                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.5   |
| Alveolus, Infiltration Cellular, Histiocyte              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1 2.0 |
| Thrombosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1 1.0 |

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Nose                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Olfactory Epithelium, Atrophy |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8 1.8 |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE<br>300 PPM                    | ANIMAL ID | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 |   |          |        |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--------|
|  |           | 1 | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 6 | 3 | 3 | 2 | 6        |        |
|  |           | 0 | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 1 | 0 | 8 | 0 | 0 | 9        | 5      |
| Olfactory Epithelium, Glands, Hyperplasia      | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |        |
| Olfactory Epithelium, Metaplasia               | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |        |
| Olfactory Epithelium, Degeneration,<br>Hyaline | 4         | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        |        |
| Olfactory Epithelium, Necrosis                 | 2         | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |        |
|  | 6         | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9        |        |
|  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |        |
| Pleura   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1        |        |
| Trachea<br>Necrosis                            |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |        |
|  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0    |        |
| <b>SPECIAL SENSES SYSTEM</b>                   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |
| Eye  |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 47       |        |
| Harderian Gland<br>Hyperplasia                 |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |        |
|  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.5    |        |
| <b>URINARY SYSTEM</b>                          |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |
| Kidney   |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50       |        |
| Nephropathy                                    |           | 2 | 3 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4        | 40 1.6 |
| Pelvis, Dilatation                             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 2.3    |        |
| Infarct  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 1.8    |        |
| Inflammation, Suppurative                      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 2.5    |        |
| Artery, Inflammation, Chronic Active           |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0    |        |
| Metaplasia, Osseous                            |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0    |        |
|  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                                      |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|--------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
|                                      | 7               | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5  |       |
|                                      | 1               | 2 | 3 | 9 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 6 | 3 | 3 | 2  | 6     |
|                                      | 0               | 8 | 1 | 8 | 0 | 9 | 9 | 0 | 1 | 9 | 9 | 0 | 9 | 6 | 0 | 9 | 9 | 1 | 0 | 8 | 0 | 0 | 9 | 5  |       |
| <hr/>                                |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
| <b>B6C3F1 MICE MALE</b>              | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |       |
| <b>300 PPM</b>                       | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |       |
|                                      | 4               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4  |       |
|                                      | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5  |       |
|                                      | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  |       |
|                                      | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
| Urinary Bladder                      | +               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Transitional Epithelium, Hyperplasia |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.0 |
| Inflammation, Chronic Active         |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|                         | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 |
|                         | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>600 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

**males  
(cont...)**

**ALIMENTARY SYSTEM**

Esophagus

+ +

Gallbladder

Infiltration Cellular, Polymorphonuclear

+ + + + + + + + + + + + + + + + A + + M + I + + + + + + +

Intestine Large, Cecum

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Intestine Large, Colon

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Intestine Large, Rectum

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Intestine Small, Duodenum

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Intestine Small, Ileum

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Intestine Small, Jejunum

+ + + + + + + + + + + + + + + + A + + + + + + A + + + + + +

Liver

Clear Cell Focus

Eosinophilic Focus

Basophilic Focus

Mixed Cell Focus

Bile Duct, Cyst

Infarct

Necrosis

+ + + + + + + + + + + + + + + +

X X X X X X X X X X X X X X X X

X X X X X X X X X X X X X X X X

X X X X X X X X X X X X X X X X

X X X X X X X X X X X X X X X X

X X X X X X X X X X X X X X X X

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST             | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 |
|                         | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>600 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

**males  
(cont...)**

Mesentery  
Fat, Necrosis+  
2

Oral Mucosa

+

Pancreas

+ +

Salivary Glands

+ +

Stomach, Forestomach

Epithelium, Hyperplasia

Ulcer

Inflammation

Ulcer, Focal

Infiltration Cellular, Mast Cell

+ +

2 1 2 3 2

Stomach, Glandular

+ + + + + + + + + + + + + + A + + + + + + + + + +

Tooth

+  
4

Malformation

**CARDIOVASCULAR SYSTEM**

Heart

+ +

Artery, Inflammation, Chronic Active

2

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

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Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                            |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|
|                         | DAY ON TEST | 7<br>2<br>9           | 7<br>2<br>9           | 7<br>3<br>0           | 7<br>2<br>9           | 7<br>2<br>9           | 7<br>3<br>1           | 5<br>6<br>8           | 7<br>3<br>0           | 7<br>3<br>0           | 7<br>3<br>0           | 5<br>4<br>0           | 7<br>2<br>9           | 7<br>2<br>9           | 4<br>6<br>0           | 7<br>3<br>0           | 5<br>2<br>0           | 7<br>3<br>0           | 7<br>3<br>0           | 4<br>3<br>2           | 7<br>3<br>0           | 4<br>3<br>2           |                       |                            |
| <b>B6C3F1 MICE MALE</b> |             | 0<br>0<br>6<br>0<br>1 | 0<br>0<br>6<br>0<br>2 | 0<br>0<br>6<br>0<br>5 | 0<br>0<br>6<br>0<br>6 | 0<br>0<br>6<br>0<br>7 | 0<br>0<br>6<br>0<br>8 | 0<br>0<br>6<br>0<br>9 | 0<br>0<br>6<br>1<br>0 | 0<br>0<br>6<br>1<br>1 | 0<br>0<br>6<br>1<br>2 | 0<br>0<br>6<br>1<br>3 | 0<br>0<br>6<br>1<br>4 | 0<br>0<br>6<br>1<br>5 | 0<br>0<br>6<br>1<br>6 | 0<br>0<br>6<br>1<br>7 | 0<br>0<br>6<br>1<br>8 | 0<br>0<br>6<br>1<br>9 | 0<br>0<br>6<br>2<br>0 | 0<br>0<br>6<br>2<br>1 | 0<br>0<br>6<br>2<br>2 | 0<br>0<br>6<br>2<br>3 | 0<br>0<br>6<br>2<br>4 |                            |
| <b>600 PPM</b>          | ANIMAL ID   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | <b>males<br/>(cont...)</b> |

## ENDOCRINE SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypertrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia                  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland            | M | + | M | + | + | + | + | + | M | M | + | + | + | M | + | + | + | + | + | + | M | M | M |
| Pituitary Gland              | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | + | I |
| Thyroid Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Follicular Cell, Hyperplasia | 1 | 1 |   | 1 | 2 |   |   |   | 1 | 3 |   |   |   |   | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

## GENERAL BODY SYSTEM

NONE

## GENITAL SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granuloma Sperm | 1 | 1 |   | 1 | 2 |   |   |   | 1 | 3 |   |   |   | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
| DAY ON TEST | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 |
|             | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |

  

|   |                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>B6C3F1 MICE MALE</b><br><b>600 PPM</b> | 0                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   | 0                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   | 6                      | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|   | 0                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|   | 1                      | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |
|   | <b>males (cont...)</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                           |   |
|---------------------------|---|
| Penis                     | + |
| Inflammation, Suppurative | 3 |

|                              |   |
|------------------------------|---|
| Preputial Gland              | + |
| Inflammation, Chronic Active | 1 |

|                           |   |
|---------------------------|---|
| Prostate                  | + |
| Inflammation, Suppurative | 3 |

|                 |   |
|-----------------|---|
| Seminal Vesicle | + |
|-----------------|---|

|         |   |
|---------|---|
| Testes  | + |
| Atrophy | + |

**HEMATOPOIETIC SYSTEM**

|                        |   |
|------------------------|---|
| Bone Marrow            | + |
| Hyperplasia, Mast Cell | + |

2

|                       |   |
|-----------------------|---|
| Lymph Node, Bronchial | + |
|-----------------------|---|

|                        |   |
|------------------------|---|
| Lymph Node, Mandibular | M |
|------------------------|---|

|                         |   |
|-------------------------|---|
| Lymph Node, Mediastinal | M |
|-------------------------|---|

|                        |   |
|------------------------|---|
| Lymph Node, Mesenteric | + |
|------------------------|---|

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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TDMS No. 88006 - 04

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Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|                         | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
|                         | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>600 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

**males  
(cont...)**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |  |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Thymus | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |  |
|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**INTEGUMENTARY SYSTEM**

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |  |
|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|                              | 3 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**NERVOUS SYSTEM**

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Gliosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|         | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**RESPIRATORY SYSTEM**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|                         | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 | 3 |
|                         | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |
| <b>B6C3F1 MICE MALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

males  
(cont...)

|            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Lung       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Thrombosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

1

1

Alveolar Epithelium, Hyperplasia

Bronchiole, Hyperplasia

Alveolus, Infiltration Cellular, Histiocyte

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Olfactory Epithelium, Atrophy             | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Glands, Hyperplasia | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Metaplasia          | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Respiratory Epithelium, Hyperplasia       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pleura | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**SPECIAL SENSES SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

3

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Hyperplasia     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

1

3

**URINARY SYSTEM**

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephropathy | 1 | 1 |   | 4 |   | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 1 | 2 | 1 |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 7 | 7 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 7 | 5 | 7 | 7 | 4 | 7 |
|                         | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 6 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 6 | 3 | 2 | 3 | 3 | 3 |
|                         | 9 | 9 | 0 | 0 | 7 | 9 | 9 | 9 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 9 | 9 | 0 | 0 | 2 | 0 | 0 | 2 |
| <b>B6C3F1 MICE MALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ANIMAL ID               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
|                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |

**males  
(cont...)**

|                                    |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Papilla, Inflammation, Suppurative | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Infarct                            |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Capsule, Fibrosis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Capsule, Hemorrhage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Pelvis, Dilatation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Metaplasia, Osseous |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Renal Tubule, Accumulation, Hyaline |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Droplet                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|                                    |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Urethra                            | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulbourethral Gland, Inflammation, |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Suppurative                        | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Urinary Bladder                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Infiltration Cellular, Polymorphonuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|  | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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x .. Lesion present

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M .. Missing tissue

A .. Autolysis precludes evaluation

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Page 52

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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Lab: BNW

|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                 |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
|                         | DAY ON TEST | 4<br>2<br>9           | 7<br>1<br>5           | 7<br>2<br>9           | 6<br>0<br>5           | 7<br>3<br>9           | 7<br>2<br>9           | 5<br>3<br>0           | 7<br>9<br>0           | 6<br>0<br>9           | 7<br>3<br>1           | 7<br>0<br>5           | 6<br>3<br>5           | 7<br>0<br>5           | 6<br>3<br>9           | 7<br>1<br>0     |
| <b>B6C3F1 MICE MALE</b> |             | 0<br>0<br>6<br>2<br>6 |                 |
| <b>600 PPM</b>          | ANIMAL ID   | 0<br>0<br>6<br>2<br>6 | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|
| Esophagus   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Gallbladder<br>Infiltration Cellular, Polymorphonuclear | + | A | + | A | + | + | + | + | + | + | + | + | I | + | I | + | I | + | M | + | A | + | M     | 39    |
| Intestine Large, Cecum                                  | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 2.0 |       |
| Intestine Large, Colon                                  | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45    |       |
| Intestine Large, Rectum                                 | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46    |       |
| Intestine Small, Duodenum                               | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46    |       |
| Intestine Small, Ileum                                  | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45    |       |
| Intestine Small, Jejunum                                | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45    |       |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |       |
| Clear Cell Focus  | X | X | X | X |   |   |   |   |   |   |   |   | X |   | X |   | X |   | X |   | X |   | X     | 14    |
| Eosinophilic Focus                                      | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |       | 6     |
| Basophilic Focus  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 3     |
| Mixed Cell Focus  | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 2     |
| Bile Duct, Cyst   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1     |
| Infarct   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 2     |
| Necrosis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 2.0   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 4 2.8 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                 |
|-------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
|                         | DAY ON TEST | 4<br>2<br>9           | 7<br>1<br>5           | 7<br>2<br>9           | 6<br>0<br>5           | 7<br>3<br>9           | 7<br>2<br>9           | 5<br>3<br>0           | 7<br>9<br>0           | 6<br>0<br>7           | 7<br>3<br>1           | 7<br>0<br>5           | 6<br>3<br>5           | 7<br>0<br>5           | 7<br>3<br>9           | 7<br>1<br>0     |
| <b>B6C3F1 MICE MALE</b> |             | 0<br>0<br>6<br>2<br>6 |                 |
| <b>600 PPM</b>          | ANIMAL ID   | 0<br>0<br>6<br>2<br>6 | <b>* TOTALS</b> |

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Mesentery                        | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
| Fat, Necrosis                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
|                                  |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
| Oral Mucosa                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>      |
| Pancreas                         | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b>     |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b>     |
| Stomach, Forestomach             | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | <b>48</b>     |
| Epithelium, Hyperplasia          |   |   | 1 |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 | <b>11 2.0</b> |
| Ulcer                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 2.0</b>  |
| Inflammation                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>5 2.0</b>  |
| Ulcer, Focal                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 2.0</b>  |
| Infiltration Cellular, Mast Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 4.0</b>  |
| Stomach, Glandular               | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | <b>47</b>     |
| Tooth                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>      |
| Malformation                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 4.0</b>  |

**CARDIOVASCULAR SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |              |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Heart                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |              |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b> |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST             | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7             | 7 |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|
|                         | 2 | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 0 | 3 | 1 | 3 | 0 | 3             | 1 | 3 | 0 |
|                         | 9 | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5 | 5 | 9 | 0 | 9 | 1             | 5 | 5 | 9 |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0             | 0 | 0 |   |
| <b>600 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0             | 0 | 0 |   |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6             | 6 | 6 |   |
|                         | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4             | 4 | 5 |   |
|                         | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | * | <b>TOTALS</b> |   |   |   |

**ENDOCRINE SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Hypertrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 13 2.0 |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 2 2.0  |
| Adrenal Medulla              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 49     |        |
| Hyperplasia                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 2 2.5  |
| Islets, Pancreatic           | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |        |
| Parathyroid Gland            | + | + | + | + | M | M | M | + | + | + | + | + | + | + | + | M | M | + | M | + | M | M | M | M | M | 31     |        |
| Pituitary Gland              | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45     |        |
| Thyroid Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Follicular Cell, Hyperplasia | 1 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 16 1.5 |        |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Epididymis      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Granuloma Sperm |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE<br>600 PPM | ANIMAL ID | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 |   |
|-----------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                             |           | 2 | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 | 3 |
|                             |           | 9 | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5 | 9 | 0 | 7 | 9 | 9 |
| * TOTALS                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Penis                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1     |
| Inflammation, Suppurative    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |
| Preputial Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0 |
| Prostate                     | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |       |
| Inflammation, Suppurative    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |
| Seminal Vesicle              | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |       |
| Testes                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Atrophy                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.5 |

## HEMATOPOIETIC SYSTEM

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |       |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-------|
| Bone Marrow             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +  | 49 |       |
| Hyperplasia, Mast Cell  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    | 1 2.0 |
| Lymph Node, Bronchial   | + | A | M | + | + | + | + | + | + | M | + | M | + | M | + | + | + | + | + | + | M | M | + | M | 33 |    |    |       |
| Lymph Node, Mandibular  | M | M | M | M | M | + | + | + | M | M | + | + | + | M | + | M | M | M | M | M | M | M | M | M | M  | 22 |    |       |
| Lymph Node, Mediastinal | + | A | + | + | + | M | M | + | M | + | + | + | M | + | M | M | + | + | + | M | M | + | + | + | +  | 32 |    |       |
| Lymph Node, Mesenteric  | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | +  | 47 |    |       |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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TDMS No. 88006 - 04

Test Type: CHRONIC

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Species/Strain: MICE/B6C3F1

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ALPHA-METHYLSTYRENE

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Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST             | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                         | 2 | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 1 | 3 | 0 | 3 | 1 |
|                         | 9 | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5 | 9 | 0 | 9 |   |
| <b>B6C3F1 MICE MALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>600 PPM</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                         | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |   |
|                         | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |   |
|                         | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |   |

**\* TOTALS**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Spleen                           | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |       |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  | 1 3.0 |

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thymus | + | A | M | + | M | + | + | + | M | + | + | M | + | + | + | + | + | M | + | M | + | M | + | 40 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

**INTEGUMENTARY SYSTEM**

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland                | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0     |
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 3.0 |

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

**NERVOUS SYSTEM**

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Brain   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Gliosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |

**RESPIRATORY SYSTEM**

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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TDMS No. 88006 - 04

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE<br>600 PPM                 | ANIMAL ID | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7  |        |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
|   |           | 2 | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 1 | 3 | 0  | 5      |
|   |           | 9 | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5 | 9 | 0 |   |    |        |
| Lung  |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Thrombosis                                  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 1.0  |
| Alveolar Epithelium, Hyperplasia            |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 4 1.3  |
| Bronchiole, Hyperplasia                     |           | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.0  |
| Alveolus, Infiltration Cellular, Histiocyte |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0  |
| Nose  |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Olfactory Epithelium, Atrophy               |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 12 1.7 |
| Olfactory Epithelium, Glands, Hyperplasia   |           | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3  | 50 3.1 |
| Olfactory Epithelium, Metaplasia            |           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3  | 49 3.0 |
| Respiratory Epithelium, Hyperplasia         |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 4.0  |
| Pleura                                      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1      |
| Trachea                                     |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |

## SPECIAL SENSES SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Eye                                  | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |       |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |
| Harderian Gland                      | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |       |
| Hyperplasia                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.0 |

## URINARY SYSTEM

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney      | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Nephropathy | 1 |   | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 |   |   | 38 1.5 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE MALE<br>600 PPM              | ANIMAL ID | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |    |
|--|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|
|  |           | 4           | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 |          |    |
|  |           | 2           | 1 | 2 | 0 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 0 | 3 | 0 | 3 | 1        |    |
|  |           | 9           | 5 | 9 | 5 | 9 | 0 | 1 | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 0 | 7 | 9 | 9 | 1 | 5 | 5        | 9  |
| Papilla, Inflammation, Suppurative       |           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0  |
| Infarct                                  |           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0  |
| Capsule, Fibrosis                        |           | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6        | 6  |
| Capsule, Hemorrhage                      |           | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 5  |
| Pelvis, Dilatation                       |           | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7        | 8  |
| Metaplasia, Osseous                      |           | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2        | 3  |
| Renal Tubule, Accumulation, Hyaline      |           | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 5  |
| Droplet                                  |           | 3           | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 5  |
| Urethra                                  |           | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        | 1  |
| Bulbourethral Gland, Inflammation,       |           | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        | 1  |
| Suppurative                              |           | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        | 1  |
| Urinary Bladder                          |           | +           | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 48 |
| Infiltration Cellular, Polymorphonuclear |           | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2        | 3  |

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST               | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 3 |
|                           | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |   |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>CONTROL</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |

females  
(cont...)**ALIMENTARY SYSTEM**

Esophagus

+ +

Gallbladder

+ M + + + + + +

Intestine Large, Cecum

+ +

Intestine Large, Colon

+ +

Intestine Large, Rectum

+ +

Intestine Small, Duodenum

+ +

Intestine Small, Ileum

+ +

Intestine Small, Jejunum  
Peyer's Patch, Hyperplasia

+ +

4

Liver

+ +

Basophilic Focus

X

Necrosis

1

Tension Lipidosis

2

Clear Cell Focus

X

Eosinophilic Focus

1

2

X

Mesentery

+ +

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST               | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 |
|                           | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>CONTROL</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

females  
(cont...)

|                           |   |   |   |   |
|---------------------------|---|---|---|---|
| Fat, Necrosis             | 2 | 2 | 3 | 2 |
| Pancreas                  | + | + | + | + |
| Duct, Cyst                | + | + | + | + |
| Salivary Glands           | + | + | + | + |
| Inflammation, Suppurative | + | + | + | + |
| Stomach, Forestomach      | + | + | + | + |
| Epithelium, Hyperplasia   | + | + | + | + |
| Inflammation              | 2 | 3 | 2 | + |
| Stomach, Glandular        | + | + | + | + |
| Metaplasia, Hepatocyte    | + | + | + | + |
| Necrosis                  | 3 | 3 | 3 | + |

**CARDIOVASCULAR SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Heart                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |  |
| Thrombosis                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |  |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |  |
| Mineralization                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**ENDOCRINE SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |
|                    | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 |
|                    | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |
| .....              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B6C3F1 MICE FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL            | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

Lymphatic, Cyst

X

Endometrium, Hyperplasia, Cystic

4

Inflammation, Suppurative

4

Fibrosis

4

Angiectasis

2

## HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Lymph Node

+

Lumbar, Angiectasis

Lymph Node, Bronchial

+ + + + + M + + + M + + + + + + + + + + + + + + + + + M

Lymph Node, Mandibular

+ + M M + + + + + + + + M + + + + + + + + M + M +

Lymph Node, Mediastinal  
Hyperplasia, Lymphoid

+ + M + M + + + + + + + + + + M + + M M + + + +

Lymph Node, Mesenteric

+ + + + + + + + + | +

Spleen

+ +

Hematopoietic Cell Proliferation

2 2

Necrosis

2

Thymus

+ +

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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TDMS No. 88006 - 04

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Lab: BNW

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |
|                    | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 |
|                    | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |
| .....              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B6C3F1 MICE FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL            | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
|                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

## INTEGUMENTARY SYSTEM

Mammary Gland

+ +

Skin

+ +

## MUSCULOSKELETAL SYSTEM

Bone

+ +

## NERVOUS SYSTEM

Brain

+ +

Necrosis

2 2

Inflammation, Suppurative

2 2

Peripheral Nerve

+

Spinal Cord

+

## RESPIRATORY SYSTEM

Larynx

+ +

Lung

+ +

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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Lab: BNW

| DAY ON TEST        | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 3 |
|                    | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |
| B6C3F1 MICE FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                    | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

Alveolar Epithelium, Hyperplasia  
Alveolus, Infiltration Cellular, Histiocyte

1

2

1 2

2

2

Nose  
Olfactory Epithelium, Glands, Hyperplasia  
Olfactory Epithelium, Metaplasia  
Respiratory Epithelium, Necrosis  
Olfactory Epithelium, Degeneration,  
    Hyaline  
Olfactory Epithelium, Atrophy

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Trachea

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## SPECIAL SENSES SYSTEM

Eye  
Cornea, Necrosis

+

+

+

+

+

+

+

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Harderian Gland  
Hyperplasia

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## URINARY SYSTEM

Kidney  
Nephropathy  
Metaplasia, Osseous  
Inflammation, Suppurative  
Infarct

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\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |   |
|                    | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 0 |
|                    | 0 | 2 | 3 | 1 | 2 | 3 | 3 | 2 | 2 | 4 | 2 | 1 | 2 | 9 | 9 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 1 | 3 | 7 |
| .....              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B6C3F1 MICE FEMALE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONTROL            | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

Urinary Bladder

+ +

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 66

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|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                    | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7        |
|                    | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        |
|                    | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 2        |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| B6C3F1 MICE FEMALE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        |
| CONTROL            | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                    | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9        |
|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

## ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Gallbladder  | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 47    |
| Intestine Large, Cecum                                 | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48    |
| Intestine Large, Colon                                 | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49    |
| Intestine Large, Rectum                                | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48    |
| Intestine Small, Duodenum                              | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48    |
| Intestine Small, Ileum                                 | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48    |
| Intestine Small, Jejunum<br>Peyer's Patch, Hyperplasia | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49    |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Basophilic Focus                                       |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X | 5     |
| Necrosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Tension Lipidosis                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 1.7 |
| Clear Cell Focus                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5     |
| Eosinophilic Focus                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2     |
| Mesentery  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8     |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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1-4 .. Lesion qualified as:

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TDMS No. 88006 - 04

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           | DAY ON TEST | 7        | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |   |
|---------------------------|-------------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | ANIMAL ID   | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| B6C3F1 MICE FEMALE        |             | 2        | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 1 | 2 | 1 |
| CONTROL                   |             | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 1        | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                           |             | 2        | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                           |             | 6        | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|                           |             | * TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fat, Necrosis             |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                  |             | +        | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Duct, Cyst                |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |
| Salivary Glands           |             | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation, Suppurative |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Forestomach      |             | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Epithelium, Hyperplasia   |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation              |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Glandular        |             | +        | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Metaplasia, Hepatocyte    |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                  |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 1        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 1        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 50       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 1 2.0    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 3 2.7    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 1 2.0    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 1 3.0    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                           |             | 2 2.0    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

## CARDIOVASCULAR SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Heart                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Inflammation, Suppurative            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 4.0 |
| Thrombosis                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |
| Artery, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |
| Mineralization                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 1.0 |

## ENDOCRINE SYSTEM

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Hyperplasia    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2 2.0 |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

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TDMS No. 88006 - 04

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|                           |                  |                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|------------------|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>B6C3F1 MICE FEMALE</b> | <b>ANIMAL ID</b> | <b>DAY ON TEST</b> | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |   |
|                           |                  | 3                  | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           |                  | 2                  | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 1 | 2 |

..... \* **TOTALS**

|   |  |
|---|--|
| Hypertrophy   | 1 2.0  |
| Adrenal Medulla<br>Hyperplasia  | + 50<br>1 4 1.0                        |
| Islets, Pancreatic  | + + + + + + + + A + 49                             |
| Parathyroid Gland   | + + + M + M M + + M + + + + M + + + + + M + + + + + + M + 38                                     |
| Pituitary Gland<br>Pars Distalis, Hyperplasia<br>Pars Intermedia, Hypertrophy | + 50<br>1 1 2 9 1.9<br>1 2.0 |
| Thyroid Gland<br>Follicular Cell, Hyperplasia                                 | + 50<br>3 2 2 1 2 3 15 2.1   |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Clitoral Gland

+ M + 43

Ovary  
Cyst+ X 48  
X 15

Uterus

+ 50

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 1 | 2 | 1 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>CONTROL</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|                           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**\* TOTALS**

|                                  |       |
|----------------------------------|-------|
| Lymphatic, Cyst                  | 1     |
| Endometrium, Hyperplasia, Cystic | 4     |
| Inflammation, Suppurative        | 4     |
| Fibrosis                         | 1     |
| Angiectasis                      | 4     |
|                                  | 5 4.0 |
|                                  | 1 4.0 |
|                                  | 1 2.0 |
|                                  | 2 4.0 |

**HEMATOPOIETIC SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Lymph Node                       | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4     |
| Lumbar, Angiectasis              | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Lymph Node, Bronchial            | + | + | + | + | + | + | + | M | M | + | + | + | + | + | M | M | + | + | M | + | M | + | 41    |
| Lymph Node, Mandibular           | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | M | M | 40    |
| Lymph Node, Mediastinal          | M | + | + | M | + | + | M | + | + | M | M | + | M | + | M | + | M | + | M | M | M | M | 34    |
| Hyperplasia, Lymphoid            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 48    |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6 2.3 |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Thymus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|--------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                    | 7         | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7        |
|                    | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        |
|                    | 2         | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 2        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| B6C3F1 MICE FEMALE | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        |
| CONTROL            |           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        |
|                    |           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8        |
|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

## INTEGUMENTARY SYSTEM

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skin          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

## MUSCULOSKELETAL SYSTEM

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

## NERVOUS SYSTEM

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Brain                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Necrosis                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0 |
| Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Peripheral Nerve          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |
| Spinal Cord               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |

## RESPIRATORY SYSTEM

|        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| DAY ON TEST               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7               |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3               |
|                           | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 1               |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
| <b>CONTROL</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|                           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1               |
|                           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5               |
|                           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7               |
|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

|   |   |   |       |
|---|---|---|-------|
| Alveolar Epithelium, Hyperplasia            | 1 | 2 | 6 1.5 |
| Alveolus, Infiltration Cellular, Histiocyte |   |   | 3 2.0 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |       |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|
| Nose   | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 49 |       |       |
| Olfactory Epithelium, Glands, Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 3 1.0 |       |
| Olfactory Epithelium, Metaplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2 1.0 |       |
| Respiratory Epithelium, Necrosis               | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1     | 1 1.0 |
| Olfactory Epithelium, Degeneration,<br>Hyaline |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1     | 3 1.7 |
| Olfactory Epithelium, Atrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1     | 1 1.0 |

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Trachea | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

**SPECIAL SENSES SYSTEM**

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Eye              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Cornea, Necrosis | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1 1.0 |
| Harderian Gland  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |
| Hyperplasia      | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1 1.0 |

**URINARY SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Nephropathy               | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 16 1.1 |
| Metaplasia, Osseous       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 1.0  |
| Inflammation, Suppurative |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0  |
| Infarct                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 2.0  |
|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|   |                  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| <b>B6C3F1 MICE FEMALE</b><br><b>CONTROL</b> | <b>ANIMAL ID</b> | 7               | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |   |  |
|   |                  | 3               | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 8 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |
|   |                  | 2               | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 5 | 7 | 1 | 2 | 5 | 3 | 1 | 2 | 3 | 3 | 2 | 3 | 1 | 2 |  |
| .....                                       |                  | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| .....                                       |                  | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| .....                                       |                  | 1               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| .....                                       |                  | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |  |
| .....                                       |                  | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| .....                                       |                  | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Urinary Bladder

+ + + + + + + A + + + + + + + + + + + + + + + + + 49

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

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TDMS No. 88006 - 04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

## ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

**Pathologist:** GRUMBEIN, S

Date Report Registered: 07/28/2005

Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

| DAY ON TEST               | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                           | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>ANIMAL ID</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>100 PPM</b>            | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

## **ALIMENTARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue  
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TDMS No. 88006 - 04

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|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                           | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>100 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)

|                                      |       |
|--------------------------------------|-------|
| Mesentery                            | +     |
| Fat, Necrosis                        | 2     |
| .....                                | ..... |
| Pancreas                             | +     |
| Artery, Inflammation, Chronic Active | +     |
| Basophilic Focus                     | 3     |
| .....                                | ..... |
| Salivary Glands                      | +     |
| .....                                | ..... |
| Stomach, Forestomach                 | +     |
| Angiectasis                          | 1     |
| .....                                | ..... |
| Stomach, Glandular                   | +     |
| Artery, Inflammation, Chronic Active | 3     |

**CARDIOVASCULAR SYSTEM**

|                                      |       |
|--------------------------------------|-------|
| Heart                                | +     |
| Hemorrhage                           | 3     |
| Artery, Inflammation, Chronic Active | 4     |
| Thrombosis                           |       |
| .....                                | ..... |

**ENDOCRINE SYSTEM**

|                |       |
|----------------|-------|
| Adrenal Cortex | +     |
| Hypertrophy    | 2     |
| Hyperplasia    | 2     |
| .....          | ..... |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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**Species/Strain:** MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

## ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

**Pathologist:** GRUMBEIN, S

Date Report Registered: 07/28/2005

Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

## **GENERAL BODY SYSTEM**

NONE

## **GENITAL SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | M | M | + | + | + | I | + | + | + | + | + | I | + | + | + |  |  |
| Ovary          | + | + | + | + | + | + | + | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Angiectasis    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Thrombosis     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Cyst           |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |   | X | X | X |   |   |   |   |   |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

#### I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Page 76

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

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Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|                           | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                           | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 3 |   |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>100 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 |   |

females  
(cont...)

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 4 |  |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Cyst                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Angiectasis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**HEMATOPOIETIC SYSTEM**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Reticulum Cell        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal, Hyperplasia, Lymphoid       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Bronchial              | + | + | + | M | + | + | + | M | M | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular             | + | + | + | M | + | + | + | M | + | + | M | M | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + |   |
| Lymph Node, Mediastinal            | + | + | + | M | M | + | + | M | M | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + |   |
| Lymph Node, Mesenteric             | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + |   |
| Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spleen                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                           | 3 | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 1 | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>100 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |

females  
(cont...)

Thymus

+ + + M I + + + + + + M + + + + + + M + + + + + +

**INTEGUMENTARY SYSTEM**

Mammary Gland

+ +

Skin

+ +

Epidermis, Hyperplasia

Inflammation, Acute

Cyst Epithelial Inclusion

2

3

**MUSCULOSKELETAL SYSTEM**

Bone

+ +

**NERVOUS SYSTEM**

Brain

+ +

Artery, Meninges, Inflammation, Chronic  
Active

3

Spinal Cord

+

**RESPIRATORY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM                  | ANIMAL ID | DAY ON TEST |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             | females<br>(cont...) |   |  |
|--|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------|---|--|
|  |           | 7<br>3<br>1 | 7<br>3<br>2 | 7<br>3<br>2 | 5<br>0<br>9 | 7<br>3<br>2 | 2<br>6<br>9 | 7<br>3<br>1 | 7<br>3<br>0 | 6<br>4<br>0 | 6<br>3<br>0 | 5<br>3<br>7 | 7<br>3<br>3 | 5<br>2<br>3 | 7<br>3<br>1 | 7<br>5<br>5 | 7<br>3<br>1 | 7<br>3<br>2 | 7<br>3<br>2 | 7<br>3<br>2 | 7<br>3<br>2 |                      |   |  |
|  |           | 7<br>3<br>1 | 7<br>3<br>2 | 7<br>3<br>2 | 5<br>0<br>9 | 7<br>3<br>2 | 2<br>6<br>9 | 7<br>3<br>1 | 7<br>3<br>0 | 6<br>4<br>0 | 6<br>3<br>0 | 5<br>3<br>7 | 7<br>3<br>3 | 5<br>2<br>3 | 7<br>3<br>1 | 7<br>5<br>5 | 7<br>3<br>1 | 7<br>3<br>2 | 7<br>3<br>2 | 7<br>3<br>2 | 7<br>3<br>2 |                      |   |  |
| Larynx   |           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           |                      |   |  |
| Artery, Inflammation, Chronic Active           |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |                      |   |  |
| Lung   |           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           |                      |   |  |
| Alveolus, Infiltration Cellular, Histiocyte    |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |                      |   |  |
| Perivasculär, Inflammation, Chronic Active     |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |                      |   |  |
| Alveolar Epithelium, Hyperplasia               |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |                      |   |  |
| Thrombosis                                     |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |                      |   |  |
| Nose   |           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | I           | +           | +                    |   |  |
| Olfactory Epithelium, Glands, Hyperplasia      |           | 2           | 3           | 3           | 2           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 2           | 3           | 3           | 3           | 3           | 3           | 3           | 3                    | 3 |  |
| Olfactory Epithelium, Metaplasia               |           | 1           | 3           | 3           | 2           | 3           | 2           | 2           | 3           | 3           | 2           | 2           | 3           | 3           | 2           | 3           | 3           | 2           | 3           | 3           | 3           | 3                    | 2 |  |
| Olfactory Epithelium, Atrophy                  |           |             |             |             |             |             |             |             |             |             |             |             |             |             | 1           |             |             |             |             |             |             |                      |   |  |
| Olfactory Epithelium, Degeneration,<br>Hyaline |           |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             | 1           |                      |   |  |
| Trachea  |           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +           | +                    | + |  |

## SPECIAL SENSES SYSTEM

|                  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Eye              |  | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Cornea, Necrosis |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Harderian Gland  |  | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Hyperplasia      |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |

## URINARY SYSTEM

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal    3) Moderate

2) Mild        4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM        | ANIMAL ID | Day On Test |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | females<br>(cont...) |   |
|--------------------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
|                                      |           | 7           | 7 | 7 | 5 | 7 | 7 | 2 | 7 | 7 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 |                      |   |
|                                      |           | 3           | 3 | 3 | 0 | 3 | 3 | 6 | 3 | 3 | 7 | 4 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 |                      |   |
|                                      |           | 1           | 2 | 2 | 9 | 1 | 2 | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 3 | 1 | 5 | 2 | 2 | 2 | 3 | 1                    |   |
| Kidney                               |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    |   |
| Nephropathy                          |           | 1           |   | 1 | 1 | 1 | 1 |   | 1 |   | 1 |   | 2 |   | 1 | 1 |   | 1 |   | 1 | 1 | 1                    | 1 |
| Infarct                              |           |             |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 4 |   |   |   |                      |   |
| Metaplasia, Osseous                  |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      | 1 |
| Urinary Bladder                      |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                    |   |
| Artery, Inflammation, Chronic Active |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |
| Inflammation, Chronic Active         |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |
|                                      |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                      |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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1-4 .. Lesion qualified as:

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                 |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                 |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |   |
|                 |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 |
|                 |  | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 |
|                 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                 |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                 |  | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                 |  | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| <b>* TOTALS</b> |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**ALIMENTARY SYSTEM**

Esophagus

+ 50

Gallbladder  
Necrosis

+ + + + + + + + + + A M + + + + + + + + A M + M + + 43 1 4.0

Intestine Large, Cecum

+ + + + + + + + + + A + + + + + + + + A + + + + + + 47

Intestine Large, Colon

+ + + + + + + + + + A + + + + + + + + A + + + + + + 48

Intestine Large, Rectum

+ + + + + + + + + + A + + + + + + + + A + + + + + + 48

Intestine Small, Duodenum

+ + + + + + + + + + A + + + + + + + + A + + + + + + 48

Intestine Small, Ileum

+ + + + + + + + + + A + + + + + + + + A + + + + + + 48

Intestine Small, Jejunum

+ + + + + + + + + + A + + + + + + + + A + + + + + + 47

Liver

+ + + + + + + + + + X + + + + + + + + + + + + + + + + 50

Eosinophilic Focus

5

Necrosis

3 3.3

Basophilic Focus

2

Clear Cell Focus

1

Infarct

1

Tension Lipidosis

1 4.0

X

2

4

X

4

2

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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ALPHA-METHYLSTYRENE

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Date Report Reqstd: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM        | ANIMAL ID | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |         |
|--------------------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---------|
|                                      |           | 7           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7        |   |         |
|                                      |           | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3        | 3 |         |
|                                      |           | 2           | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3        | 1 | 1       |
| Mesentery                            |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | + 5     |
| Fat, Necrosis                        |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | 2 5 2.2 |
| Pancreas                             |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | + 50    |
| Artery, Inflammation, Chronic Active |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | 1 3.0   |
| Basophilic Focus                     |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | 1 2.0   |
| Salivary Glands                      |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | + 50    |
| Stomach, Forestomach                 |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | + 50    |
| Angiectasis                          |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | 1 1.0   |
| Stomach, Glandular                   |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | + 48    |
| Artery, Inflammation, Chronic Active |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | 1 3.0   |

## CARDIOVASCULAR SYSTEM

|                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |
|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Heart                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + 50  |
| Hemorrhage                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 3.0 |
| Artery, Inflammation, Chronic Active |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 4.0 |
| Thrombosis                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 3.0 |

## ENDOCRINE SYSTEM

|                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Adrenal Cortex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + 50  |
| Hypertrophy    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 2.0 |
| Hyperplasia    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 2.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM | ANIMAL ID | 7        | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |    |        |
|-------------------------------|-----------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
|                               |           | 3        | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3  |        |
|                               |           | 2        | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1  | 1      |
|                               |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |        |
|                               |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |        |
|                               |           | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3  |        |
|                               |           | 2        | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5  |        |
|                               |           | 6        | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  |        |
|                               |           | * TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
| Adrenal Medulla               |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Hyperplasia                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 1.7  |
| Islets, Pancreatic            |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Hyperplasia                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |
| Parathyroid Gland             |           | +        | M | M | + | + | + | M | M | M | M | + | M | M | M | + | M | + | + | + | + | + | M | 30 |        |
| Pituitary Gland               |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 |        |
| Pars Distalis, Hyperplasia    |           | 2        |   |   | 2 | 2 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |    | 8 1.9  |
| Pars Intermedia, Hyperplasia  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |
| Thyroid Gland                 |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Follicular Cell, Hyperplasia  |           | 1        | 1 |   |   | 2 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 11 1.8 |
| Inflammation, Chronic Active  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0  |
| C-cell, Hyperplasia           |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |

## GENERAL BODY SYSTEM

NONE

## GENITAL SYSTEM

Clitoral Gland

+ + + + + + + + + + + + + + + M + + M M M M + + + 41

Ovary

+ 50

Angiectasis

3 3.7

Thrombosis

2 4.0

Cyst

4 8

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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TDMS No. 88006 - 04

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ALPHA-METHYLSTYRENE

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Date Report Reqstd: 07/28/2005

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Lab: BNW

|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|--------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                    | 7         | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |          |
|                    | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 5 | 3 | 6 | 3 | 3 | 3 | 3 | 3        |
|                    | 2         | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| B6C3F1 MICE FEMALE | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        |
| 100 PPM            |           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                    |           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6        |
|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |         |
| Endometrium, Hyperplasia, Cystic | 4 |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 8 4.0   |
| Cyst                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Angiectasis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 1 3.0 |

## HEMATOPOIETIC SYSTEM

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49    |
| Hyperplasia, Reticulum Cell        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   | 1 2.0 |
| Lymph Node                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5     |
| Renal, Hyperplasia, Lymphoid       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Lymph Node, Bronchial              | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | 41    |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Lymph Node, Mandibular             | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | + | 39    |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Lymph Node, Mediastinal            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | + | 40    |
|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| Lymph Node, Mesenteric             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | M | + | 48    |
| Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Spleen                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hematopoietic Cell Proliferation   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 2.8 |
| Hyperplasia, Lymphoid              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 2.8 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                               |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|-------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                               | 7         | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7        |
|                               | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3        |
|                               | 2         | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1        |
|                               | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                               | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| B6C3F1 MICE FEMALE<br>100 PPM | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        |
|                               |           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                               |           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8        |
|                               |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

Thymus

+ M + + + + + + 45

## INTEGUMENTARY SYSTEM

Mammary Gland

+ 50

Skin

Epidermis, Hyperplasia 1 2.0  
Inflammation, Acute 1 3.0  
Cyst Epithelial Inclusion 3 1 3.0

## MUSCULOSKELETAL SYSTEM

Bone

+ 50

## NERVOUS SYSTEM

Brain

Artery, Meninges, Inflammation, Chronic 1 3.0  
Active

Spinal Cord

1

## RESPIRATORY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM                  | ANIMAL ID | 7        | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 |   |
|--|-----------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |           | 3        | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 |
|  |           | 2        | 2 | 1 | 3 | 2 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8 | 1 | 3 | 1 | 1 |
|  |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|  |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|  |           | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|  |           | 2        | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   |
|  |           | 6        | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |
|  |           | * TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Larynx   |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Artery, Inflammation, Chronic Active           |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lung   |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Alveolus, Infiltration Cellular, Histiocyte    |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Perivascular, Inflammation, Chronic Active     |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar Epithelium, Hyperplasia               |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombosis                                     |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose   |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Olfactory Epithelium, Glands, Hyperplasia      |           | 3        | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |   |
| Olfactory Epithelium, Metaplasia               |           | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |   |
| Olfactory Epithelium, Atrophy                  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Degeneration,<br>Hyaline |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea  |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

## SPECIAL SENSES SYSTEM

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Eye              | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + |  |
| Cornea, Necrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Harderian Gland  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |  |
| Hyperplasia      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

## URINARY SYSTEM

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Lab: BNW

| B6C3F1 MICE FEMALE<br>100 PPM        | ANIMAL ID | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |   |   |   |   |    |    |     |
|--------------------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|----|----|-----|
|                                      |           | 7           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7        | 7 | 7 | 7 | 7 | 7 | 7  | 7  |     |
|                                      |           | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 6 | 3        | 3 | 3 | 3 | 3 | 3 | 3  | 3  | 3   |
|                                      |           | 2           | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 5 | 6 | 3 | 3 | 7 | 1 | 1 | 1 | 3 | 6 | 3 | 3 | 8        | 1 | 3 | 1 | 1 | 1 | 2  | 2  | 2   |
| Kidney                               |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | +        | + | + | + | + | + | 49 |    |     |
| Nephropathy                          |           |             |   |   |   | 1 |   | 1 |   | 3 | 1 | 1 |   |   |   |   |   | 4 |   |   |   |          |   |   |   |   |   | 1  | 21 | 1.3 |
| Infarct                              |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |          |   |   |   |   |   |    | 3  | 2.7 |
| Metaplasia, Osseous                  |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    | 1  | 1.0 |
| Urinary Bladder                      |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | +        | + | + | + | + | + | 48 |    |     |
| Artery, Inflammation, Chronic Active |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    | 1  | 3.0 |
| Inflammation, Chronic Active         |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    | 1  | 1.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

## ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

**Pathologist:** GRUMBEIN, S

Date Report Registered: 07/28/2005

Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

|                           | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST               | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 6 |
|                           | 1 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 |
| <b>B6C3F1 MICE FEMALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ANIMAL ID                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 300 PPM                   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

## ALIMENTARY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
|                           | 1 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

females  
(cont...)Tension Lipidosis  
Infarct

|                         |   |   |
|-------------------------|---|---|
| Mesentery               | + | + |
| Fat, Necrosis           | 2 | 2 |
| Pancreas                | + | + |
| Atrophy                 | 2 | + |
| Salivary Glands         | + | + |
| Atrophy                 | 2 | + |
| Necrosis                | 2 | + |
| Stomach, Forestomach    | + | + |
| Epithelium, Hyperplasia | 2 | + |
| Mineralization          | 1 | + |
| Stomach, Glandular      | + | + |
| Metaplasia, Hepatocyte  | + | + |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |

**ENDOCRINE SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>300 PPM | ANIMAL ID | Day On Test |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                               |           | 7           | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|                               |           | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
|                               |           | 1           | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 | 3 |
| Adrenal Cortex                |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                   |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                      |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hypertrophy                   |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla               |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                   |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | M |
| Necrosis                      |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |
| Islets, Pancreatic            |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia                   |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland             |           | M           | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | M | + | M | + | + |   |
| Pituitary Gland               |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Hyperplasia    |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Distalis, Angiectasis    |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                 |           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Follicular Cell, Hyperplasia  |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C-cell, Hyperplasia           |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation, Chronic Active  |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

## GENERAL BODY SYSTEM

NONE

## GENITAL SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>300 PPM              | ANIMAL ID | Day On Test |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |           | 7           | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|  |           | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
|  |           | 1           | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 | 3 |
| Clitoral Gland                             |           | +           | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | M | M |
| Ovary<br>Cyst<br>Angiectasis               |           | +           | + | + | + | + | + | + | + | + | I | + | + | + | X | + | + | + | + | X | + | + | + | + | + | X |
| Uterus<br>Endometrium, Hyperplasia, Cystic |           | +           | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 4 | 4 | 4 | + | + | + | + | + |

## HEMATOPOIETIC SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow<br>Inflammation, Granulomatous                   | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymph Node   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   | + |   |   |   |   |   |
| Lymph Node, Bronchial  |   | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + |   |
| Lymph Node, Mandibular                                       |   | + | + | + | M | + | M | M | + | + | M | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + |   |
| Lymph Node, Mediastinal                                      |   | M | M | + | M | M | A | + | + | + | M | + | + | + | M | + | + | + | + | M | M | M | M | M | + | + |   |
| Lymph Node, Mesenteric<br>Infiltration Cellular, Plasma Cell |   | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Spleen<br>Hematopoietic Cell Proliferation                   |   | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 4 | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 7         | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|                    | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
|                    | 1         | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 |   |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| B6C3F1 MICE FEMALE | ANIMAL ID | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |
| 300 PPM            |           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                    |           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |   |

females  
(cont...)

Hyperplasia, Lymphoid

4

Thymus

+ + + + + A +

## INTEGUMENTARY SYSTEM

Mammary Gland

+ +

Skin

+ +

Necrosis

2

Infiltration Cellular, Mixed Cell

## MUSCULOSKELETAL SYSTEM

Bone

+ +

Maxilla, Necrosis

Skeletal Muscle

+

## NERVOUS SYSTEM

Brain

+ +

Gliosis

2

Spinal Cord

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 6 |
|                           | 1 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |

females  
(cont...)

## RESPIRATORY SYSTEM

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lung  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Alveolar Epithelium, Hyperplasia            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hemorrhage                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolus, Infiltration Cellular, Histiocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bronchiole, Hyperplasia                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Olfactory Epithelium, Glands, Hyperplasia   | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| Olfactory Epithelium, Metaplasia            | 3 | 3 | 3 | 3 | 3 | 3 |   |   | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Atrophy               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Glands, Inflammation, Acute                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |

## SPECIAL SENSES SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                                  | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Cornea, Inflammation, Chronic Active |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                      | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                          | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

Time Report Reqsted: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 |
|                           | 1 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 6 | 1 | 3 | 2 | 9 | 7 | 3 | 2 | 3 | 3 |   |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>300 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |

females  
(cont...)

## URINARY SYSTEM

Kidney  
Metaplasia, Osseous  
Nephropathy  
Infarct  
Amyloid Deposition

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

Urinary Bladder

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

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1-4 .. Lesion qualified as:

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TDMS No. 88006 - 04

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ALPHA-METHYLSTYRENE

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Pathologist: GRUMBEIN, S.

Date Report Reqsted: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7               |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 7 | 3               |
|                           | 2 | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 2 | 1 | 0 | 3               |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
| <b>300 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5               |
|                           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4               |
|                           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8               |
|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

## ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |
| Gallbladder  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | +         | <b>41</b>  |
| Intestine Large, Cecum                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +         | <b>47</b>  |
| Intestine Large, Colon                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>48</b>  |
| Intestine Large, Rectum                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>48</b>  |
| Intestine Small, Duodenum                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +         | <b>46</b>  |
| Intestine Small, Ileum                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +         | <b>46</b>  |
| Intestine Small, Jejunum<br>Peyer's Patch, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | +         | <b>46</b>  |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>  |
| Clear Cell Focus                                       | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>3</b>   |
| Eosinophilic Focus                                     |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>7</b>   |
| Angiectasis  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   |
| Basophilic Focus                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>3.0</b> |
| Hematopoietic Cell Proliferation                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   |
| Mixed Cell Focus                                       | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>4.0</b> |
| Necrosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>   |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>2.0</b> |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>300 PPM                                     | ANIMAL ID | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
|   |           | 7           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 |          |   |
|   |           | 3           | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 3 | 7 | 3        |   |
|   |           | 2           | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 2 | 2 | 1 | 0        | 3 |
| Tension Lipidosis<br>Infarct                                      |           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 |
| Mesentery<br>Fat, Necrosis  |           | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 |
| Pancreas<br>Atrophy   |           | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5        | 5 |
| Salivary Glands<br>Atrophy<br>Necrosis                            |           | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 5 |
| Stomach, Forestomach<br>Epithelium, Hyperplasia<br>Mineralization |           | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6        | 7 |
| Stomach, Glandular<br>Metaplasia, Hepatocyte                      |           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |

## CARDIOVASCULAR SYSTEM

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Heart<br>Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |

## ENDOCRINE SYSTEM

|  |       |
|--|-------|
|  | ..... |
|  | ..... |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>300 PPM | ANIMAL ID | 7        | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 |    |      |
|-------------------------------|-----------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|------|
|                               |           | 3        | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 7 | 3 | 3  |      |
|                               |           | 2        | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 1 | 0 | 3  | 1    |
|                               |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |      |
|                               |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |      |
|                               |           | 5        | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5  |      |
|                               |           | 2        | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4  |      |
|                               |           | 6        | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7  |      |
|                               |           | * TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |      |
| Adrenal Cortex                |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |      |
| Hyperplasia                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2    |
| Necrosis                      |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1    |
| Hypertrophy                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2.0  |
|                               |           | 2        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.40 |
| Adrenal Medulla               |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |      |
| Hyperplasia                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1    |
| Necrosis                      |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.4  |
| Islets, Pancreatic            |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |      |
| Hyperplasia                   |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1    |
| Parathyroid Gland             |           | M        | + | + | M | M | M | M | + | M | + | + | + | M | + | + | M | + | M | + | M | M | 33 |      |
| Pituitary Gland               |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |      |
| Pars Distalis, Hyperplasia    |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 4    |
| Pars Distalis, Angiectasis    |           | 3        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2.5  |
|                               |           | 2        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.5  |
| Thyroid Gland                 |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |      |
| Follicular Cell, Hyperplasia  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 10   |
| C-cell, Hyperplasia           |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.6  |
| Inflammation, Chronic Active  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1    |
|                               |           | 1        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1.0  |
|                               |           | 3        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3.0  |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>300 PPM    | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 6 | 7 | 7 |   |          |
|----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                                  |           | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 7 | 3 | 3 |          |
|                                  |           | 2 | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 1 | 0 | 3 | 1        |
|                                  | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                                  | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                                  | 5         | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5        |
|                                  | 2         | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        |
|                                  | 6         | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9        |
|                                  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
| Clitoral Gland                   |           | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | M | + | M | + | + | + | + | 42       |
| Ovary                            |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49       |
| Cyst                             |           | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X | X |   |   |   | 12       |
| Angiectasis                      |           |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0    |
| Uterus                           |           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49       |
| Endometrium, Hyperplasia, Cystic |           |   |   |   |   |   |   |   |   | 4 | 4 | 4 |   |   |   |   |   | 4 | 4 |   |   |   |   | 9 4.0    |

## HEMATOPOIETIC SYSTEM

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48    |
| Inflammation, Granulomatous        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Lymph Node                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2     |
| Lymph Node, Bronchial              | + | + | + | + | + | M | + | + | + | + | + | M | M | + | M | + | M | + | M | + | M | + | M | 39    |
| Lymph Node, Mandibular             | + | + | + | + | M | + | + | + | M | + | + | M | M | I | + | + | + | M | + | + | + | + | + | 37    |
| Lymph Node, Mediastinal            | + | + | + | + | M | M | + | + | + | + | + | M | + | M | + | + | + | M | + | M | + | M | + | 34    |
| Lymph Node, Mesenteric             | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47    |
| Infiltration Cellular, Plasma Cell |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |
| Spleen                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49    |
| Hematopoietic Cell Proliferation   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 3.7 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |
|                           | 3               | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 3 |
|                           | 2               | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 2 | 1 | 0 | 3 | 1 |
| <b>B6C3F1 MICE FEMALE</b> | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>300 PPM</b>            | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           | 5               | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
|                           | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                           | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|                           | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**RESPIRATORY SYSTEM**

|        |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|--------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|   |   |     |
|---|---|-----|
| Alveolar Epithelium, Hyperplasia            | 2 | 2.5 |
| Hemorrhage                                  | 1 | 4.0 |
| Alveolus, Infiltration Cellular, Histiocyte | 2 | 2.5 |
| Bronchiole, Hyperplasia                     | 2 | 1.5 |

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Olfactory Epithelium, Glands, Hyperplasia | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3     | 50 2.9 |
| Olfactory Epithelium, Metaplasia          | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3     | 47 3.0 |
| Olfactory Epithelium, Atrophy             |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 4 1.5 |        |
| Glands, Inflammation, Acute               |   |   |   |   |   |   |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   | 1 4.0 |        |

|         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

**SPECIAL SENSES SYSTEM**

|     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 46 |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|                                      |   |     |
|--------------------------------------|---|-----|
| Cornea, Inflammation, Chronic Active | 1 | 1.0 |
|--------------------------------------|---|-----|

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|             |   |     |
|-------------|---|-----|
| Hyperplasia | 3 | 2.3 |
| Necrosis    | 1 | 2.0 |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |                 |
|                           | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 4 | 1 | 0 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 7 | 3 | 3               |
|                           | 2 | 2 | 3 | 1 | 3 | 3 | 5 | 3 | 1 | 3 | 1 | 2 | 9 | 9 | 9 | 3 | 6 | 2 | 2 | 2 | 1 | 0 | 3 | 1               |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
| <b>300 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|                           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5               |
|                           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5               |
|                           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9               |
|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |

## URINARY SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Kidney              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50            |
| Metaplasia, Osseous |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 1.0</b>  |
| Nephropathy         | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>12 1.0</b> |
| Infarct             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>6 1.5</b>  |
| Amyloid Deposition  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 4.0</b>  |
| Urinary Bladder     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>48</b>     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

## ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

**Pathologist:** GRUMBEIN, S

Date Report Registered: 07/28/2005

Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

## **ALIMENTARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

| .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

#### 1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild      4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 |   |
|                           |             | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 |   |
|                           |             | 3 | 9 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 6 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <b>600 PPM</b>            |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                           |             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                           |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|                           |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

**females  
(cont...)**

|                                     |   |   |   |
|-------------------------------------|---|---|---|
| Mesentery                           | + | + |   |
| Fat, Necrosis                       | 2 | 2 | 2 |
| Pancreas                            | + | + | + |
| Salivary Glands                     | + | + | + |
| Stomach, Forestomach                | + | + | + |
| Epithelium, Hyperplasia, Basal Cell |   |   |   |
| Epithelium, Hyperplasia             |   | 3 |   |
| Inflammation                        |   |   | 2 |
| Ulcer                               |   | 2 |   |
| Stomach, Glandular                  | + | + | + |

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cardiomyopathy |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Necrosis       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombosis     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**ENDOCRINE SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hypertrophy    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 |   |
|                           | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 |   |
|                           | 3 | 9 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 6 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>600 PPM</b>            | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |   |

**females  
(cont...)**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Endometrium, Hyperplasia, Cystic | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Angiectasis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombosis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Lymph Node                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Bronchial            | + | + | + | + | + | + | M | + | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + |  |
| Lymph Node, Mandibular           | + | + | M | M | + | + | + | M | + | + | + | + | M | + | M | + | + | M | + | + | M | + | + |  |
| Hyperplasia, Lymphoid            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Mediastinal          | + | M | M | M | M | + | M | + | M | + | M | + | M | + | M | + | + | M | + | + | M | + | + |  |
|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hematopoietic Cell Proliferation | 2 |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thymus                           | + | I | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 |   |
|                           | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 |   |
|                           | 3 | 9 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 6 | 3 |
| <b>B6C3F1 MICE FEMALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ANIMAL ID                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |   |

females  
(cont...)

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Olfactory Epithelium, Glands, Hyperplasia      | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Metaplasia               | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Olfactory Epithelium, Atrophy                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Olfactory Epithelium, Degeneration,<br>Hyaline |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Inflammation, Suppurative                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thrombosis                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation, Suppurative                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cataract               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| <b>Harderian Gland</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**URINARY SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infarct                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Nephropathy            | 2 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Metaplasia, Osseous    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary Bladder</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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1-4 .. Lesion qualified as:

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|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 |   |
| DAY ON TEST               | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 |   |
|                           | 3 | 9 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 6 | 3 |
| <b>B6C3F1 MICE FEMALE</b> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>ANIMAL ID</b>          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>600 PPM</b>            | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |   |
|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

females  
(cont...)

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

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# ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Esophagus<br>Inflammation, Suppurative                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1  | 2.0 |     |
| Gallbladder  | + | + | + | + | + | + | I | + | + | M | I | + | + | I | + | + | + | + | + | + | + | I | +  | +  | 43  |     |
| Intestine Large, Cecum                                 | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 48 |     |     |
| Intestine Large, Colon                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |     |     |
| Intestine Large, Rectum                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |     |     |
| Intestine Small, Duodenum                              | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 49 |     |     |
| Intestine Small, Ileum                                 | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 48 |     |     |
| Intestine Small, Jejunum<br>Peyer's Patch, Hyperplasia | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 48 | 1   | 4.0 |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |     |     |
| Basophilic Focus                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3  |     |     |
| Eosinophilic Focus                                     | X |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 12 |     |     |
| Tension Lipidosis                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3  | 1.7 |     |
| Clear Cell Focus                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 5  |     |     |
| Necrosis   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2  | 2.5 |     |
| Mitotic Alteration                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  | 4.0 |     |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 4  |     |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

#### I .. Insufficient tissue

U .. Uncertain, grade  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
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|                                     |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-------------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                     | DAY ON TEST | 7<br>3<br>2           | 6<br>1<br>2           | 7<br>3<br>2           | 6<br>7<br>3           | 7<br>3<br>2           | 5<br>6<br>3           | 4<br>3<br>3           | 7<br>4<br>2           | 7<br>3<br>3           | 6<br>9<br>5           | 7<br>3<br>1           | 7<br>3<br>1           | 6<br>8<br>4           | 6<br>9<br>4           | 7<br>3<br>2           | 5<br>2<br>7           | 7<br>3<br>2           | 7<br>3<br>3           | 6<br>8<br>3           | 7<br>3<br>3           |
| B6C3F1 MICE FEMALE                  | ANIMAL ID   | 0<br>0<br>7<br>2<br>6 | 0<br>0<br>7<br>2<br>7 | 0<br>0<br>7<br>2<br>8 | 0<br>0<br>7<br>2<br>9 | 0<br>0<br>7<br>2<br>0 | 0<br>0<br>7<br>3<br>1 | 0<br>0<br>7<br>3<br>2 | 0<br>0<br>7<br>3<br>3 | 0<br>0<br>7<br>3<br>4 | 0<br>0<br>7<br>3<br>5 | 0<br>0<br>7<br>3<br>6 | 0<br>0<br>7<br>3<br>7 | 0<br>0<br>7<br>3<br>8 | 0<br>0<br>7<br>3<br>9 | 0<br>0<br>7<br>4<br>0 | 0<br>0<br>7<br>4<br>1 | 0<br>0<br>7<br>4<br>2 | 0<br>0<br>7<br>4<br>3 | 0<br>0<br>7<br>4<br>4 | 0<br>0<br>7<br>4<br>5 |
| 600 PPM                             |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|                                     |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|                                     |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|                                     |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Mesentery                           |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Fat, Necrosis                       |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Pancreas                            |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Salivary Glands                     |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Stomach, Forestomach                |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Epithelium, Hyperplasia, Basal Cell |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Epithelium, Hyperplasia             |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Inflammation                        |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Ulcer                               |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Stomach, Glandular                  |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| CARDIOVASCULAR SYSTEM               |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Heart                               |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Cardiomyopathy                      |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Necrosis                            |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Thrombosis                          |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| ENDOCRINE SYSTEM                    |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Adrenal Cortex                      |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Hypertrophy                         |             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

l .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                               |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |  |          |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|----------|
|                               | DAY ON TEST | 7<br>3<br>2 | 6<br>1<br>2 | 7<br>3<br>2 | 5<br>2<br>6 | 4<br>3<br>3 | 7<br>3<br>3 | 7<br>3<br>3 | 6<br>9<br>5 | 7<br>3<br>1 | 7<br>3<br>3 | 6<br>8<br>4 | 7<br>7<br>1 | 7<br>3<br>4 | 7<br>7<br>1 | 6<br>9<br>4 | 6<br>8<br>4 | 7<br>3<br>2 | 5<br>2<br>7 | 7<br>3<br>2 | 7<br>3<br>3 | 6<br>8<br>3 |  |          |
|                               |             | 0<br>0<br>0 |  |          |
| B6C3F1 MICE FEMALE<br>600 PPM | ANIMAL ID   | 7<br>2<br>6 | 7<br>2<br>7 | 7<br>2<br>3 | 7<br>3<br>3 | 7<br>3<br>3 | 7<br>3<br>3 | 7<br>3<br>3 | 7<br>3<br>3 | 7<br>7<br>7 |  |          |
|                               |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |  | * TOTALS |

|   |   |       |           |
|---|---|-------|-----------|
| Hyperplasia                                   |   | 2     | 1 2.0     |
| Adrenal Medulla Hyperplasia                   | + | +     | 49 4 1.5  |
| Islets, Pancreatic                            | + | +     | 50        |
| Parathyroid Gland                             | + | M M I | 35        |
| Pituitary Gland<br>Pars Distalis, Hyperplasia | + | +     | 47 7 2.4  |
| Thyroid Gland<br>Follicular Cell, Hyperplasia | + | +     | 50 15 1.8 |

## GENERAL BODY SYSTEM

NONE

## GENITAL SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |      |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|------|
| Clitoral Gland      | + | M | + | + | + | + | I | + | + | + | + | + | + | + | + | + | M | + | + | I | + | M | + | + | +       | 41   |
| Ovary Cyst          | + | + | + | + | + | + | + | X | + | X | + | + | + | + | + | + | + | X | + | X | + | X | + | + | +       | 50 8 |
| Oviduct Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1 3.0 |      |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

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Date Report Reqstd: 07/28/2005

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First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|--------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                    | 7         | 6 | 7 | 6 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7        |
|                    | 3         | 1 | 3 | 7 | 3 | 3 | 2 | 6 | 3 | 3 | 4 | 3 | 9 | 3 | 3 | 3 | 8 | 9 | 3 | 2 | 3 | 3 | 8 | 3        |
|                    | 2         | 2 | 2 | 7 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 1 | 4 | 4 | 2 | 7 | 2 | 3 | 3        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                    | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
| B6C3F1 MICE FEMALE | ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7        |
| 600 PPM            |           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                    |           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8        |
|                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9 3.8 |
| Angiectasis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.5 |
| Thrombosis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |
| Necrosis                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |

## HEMATOPOIETIC SYSTEM

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|----|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |    |
| Lymph Node                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |    |
| Lymph Node, Bronchial            | M | M | + | + | + | + | + | M | + | + | + | M | + | + | + | + | + | M | M | M | M | + | + | 37    |    |
| Lymph Node, Mandibular           | + | + | + | + | M | + | M | M | + | + | + | M | M | + | M | + | + | + | + | + | + | M | + | 36    |    |
| Hyperplasia, Lymphoid            |   |   |   |   |   |   |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |    |
| Lymph Node, Mediastinal          | + | + | + | + | + | + | + | M | + | + | + | M | + | + | + | + | M | M | M | M | + | + | + | 36    |    |
| Lymph Node, Mesenteric           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |    |
| Spleen                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |    |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 2.8 |    |
| Thymus                           | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | +     | 46 |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

TDMS No. 88006 - 04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

## ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

**Pathologist:** GRUMBEIN, S

Date Report Registered: 07/28/2005

Time Report Requested: 09:53:34

**First Dose M/F:** 07/30/01 / 07/30/01

## Lab: BNW

| DAY ON TEST               | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 |          |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|                           | 3 | 1 | 3 | 7 | 3 | 3 | 3 | 2 | 6 | 3 | 3 | 4 | 3 | 9 | 3 | 3 | 3 | 8 | 9 | 3 | 2 | 3 | 3 | 8 | 3 |          |
|                           | 2 | 2 | 2 | 7 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 1 | 4 | 4 | 2 | 7 | 2 | 3 | 3 | 3 |          |
| <hr/>                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| <b>B6C3F1 MICE FEMALE</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| <b>600 PPM</b>            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| ANIMAL ID                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |
|                           | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7        |
| <hr/>                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
|                           | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |
|                           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | * TOTALS |

## **INTEGUMENTARY SYSTEM**

## MUSCULOSKELETAL SYSTEM

## **NERVOUS SYSTEM**

# RESPIRATORY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

#### I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

TDMS No. 88006 - 04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

ALPHA-METHYLSTYRENE

CAS Number: 98-83-9

Pathologist: GRUMBEIN, S.

Date Report Reqstd: 07/28/2005

Time Report Reqstd: 09:53:34

First Dose M/F: 07/30/01 / 07/30/01

Lab: BNW

| B6C3F1 MICE FEMALE<br>600 PPM                  | ANIMAL ID | 7        | 6 | 7 | 6 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7     |        |
|--|-----------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
|  |           | 3        | 1 | 3 | 7 | 3 | 3 | 3 | 2 | 6 | 3 | 3 | 4 | 3 | 9 | 3 | 3 | 3 | 8 | 9 | 3 | 2 | 3 | 3 | 8     | 3      |
|  |           | 2        | 2 | 2 | 7 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 1 | 4 | 4 | 2 | 7 | 2 | 3 | 3     | 3      |
|  |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |        |
|  |           | 0        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0     |        |
|  |           | 7        | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7     |        |
|  |           | 2        | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5     |        |
|  |           | 6        | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9     |        |
|  |           | * TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |        |
| Nose   |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |        |
| Olfactory Epithelium, Glands, Hyperplasia      |           | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3     | 50 3.0 |
| Olfactory Epithelium, Metaplasia               |           | 3        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3     | 50 3.0 |
| Olfactory Epithelium, Atrophy                  |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0 |        |
| Olfactory Epithelium, Degeneration,<br>Hyaline |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |        |
| Inflammation, Suppurative                      |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |        |
| Thrombosis                                     |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |        |
| Trachea  |           | +        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |        |
| Inflammation, Suppurative                      |           |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0 |        |

## SPECIAL SENSES SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye             | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49    |
| Cataract        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hyperplasia     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 1.6 |

## URINARY SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Infarct             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.5  |
| Nephropathy         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 26 1.6 |
| Metaplasia, Osseous |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Urinary Bladder     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |

\* ... Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

x .. Lesion present

I .. Insufficient tissue

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TDMS No. 88006 - 04

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

## P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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Date Report Reqstd: 07/28/2005

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Lab: BNW

|                    |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 7               | 6 | 7 | 6 | 7 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 6 | 7 |
|                    | 3               | 1 | 3 | 7 | 3 | 3 | 2 | 6 | 3 | 3 | 4 | 3 | 9 | 3 | 3 | 3 | 8 | 9 | 3 | 2 | 3 | 3 | 8 | 3 |
|                    | 2               | 2 | 2 | 7 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 1 | 4 | 4 | 2 | 7 | 2 | 3 | 3 |
| <hr/>              |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| B6C3F1 MICE FEMALE | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 600 PPM            | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID          | 7               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                    | 2               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
|                    | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|                    | * <b>TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\*\*\* END OF REPORT \*\*\*

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1) Minimal 3) Moderate

2) Mild 4) Marked